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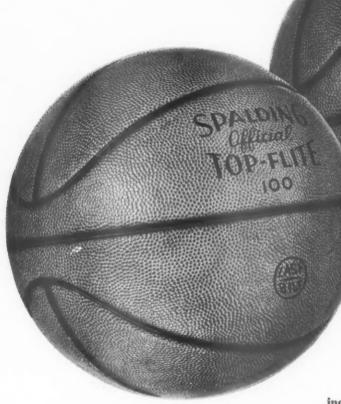
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Eastern Advertising Representative:

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**NEW ITEMS** 

**BUYERS GUIDE** 

Vito "Bahe" Parilll, Kentucky's great All American passer, serves as the subject for the Athletic Journal's pictorial coverage of that part of the passing game. In order to record the receiving technique, the camera journeyed across the country to Whittler, California.

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## **Modern Steel-Deck Stadium and Grandstand Construction**



SECTIONAL VIEW of upper and lower steel-decks of Tulane (Sugar Bowl) Stadium, New Orleans,



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## from here and there

/HAT can be done in building an athletic program is evidenced in the achievements of Bill Bolvard of little Union College in Kentucky. Arriving at the school in 1947, he set out to build a track. Upon the completion of the track, the school fielded its first track team in the spring of 1948. Two years later Union. although seven of the eleven members of the Kentucky Intercollegiate Athletic Conference are bigger, won the conference track championship. The next year Union was runner-up, and again this past spring were the champions . . . Many questions were asked about the Olympic track at Helsinki - it is a mixture of brick dust and peat moss, and we understand that the Coliseum in Los Angeles is going to follow the construction of the Helsinki track in rebuilding its track . . . Pete Shotwell of Abilene, Texas has spent 36 years in coaching, all of them as a head coach . . . John Zeger, who has been football coach at Olympia Junior College in Bremerton, Washington, moved to Montana State as line coach . . . Think you've got troubles, how about the Texas high school coaches who have to travel up to 400 miles to play home and home basketball games with other teams in their district? There are a number of such cases . . . Don Maechtle, assistant coach at Bay City, Michigan, is the new head coach at Princeton, Illinois, High School . . . Nick Kotys, who compiled a tremendous record in Pennsylvania high schools, before joining the staff at Yale, has returned to high school coaching in Florida.

ARRY Kinert, whose Freeport, Illinois, High School team won the state championship a year ago, moves to Oak Park High School, replacing Dave Miller who becomes assistant principal at Glenbard High School... Wonder if any conference can boast as many Olympic representatives as the Big Seven? In track there were three, Washburn, Santee, and Baker; in basketball 10 of the 14-man team were from the conference; and three members of the wrestling team. In addition, Neville Price and Graham Johnston, Oklahoma

athletes, represented South Africa . . . Three Boston high school coaches with long tenure behind them have resigned: Charles Fitzgerald at Boston Latin since 1922; Fred Murray in the Boston School System since 1920 and at Roslindale since it opened in 1936: and Tom Campbell who has been at Memorial High since it opened in 1930, comprise the threesome. This leaves the following Boston veterans still going strong: Bill Pendergast at Dorchester for 34 years; Steve White at South Boston for 28 years; Harry Tilton at Trade for 23 years; Harry Fleming at Commerce for 27 years . . . According to reports, one of the things that impressed the Russians most during the recent Olympics was the rubber-covered balls which the American basketball, soccer, and water polo teams had. Consequently, a Seamless basketball, autographed by all of the members of the American team, was presented to the Russians. Hope this will serve to convince the Russians that the game of basketball should be played with a basketball and not a soccer ball.

HUCK Studley, captain of last year's Rose Bowl champions, has been signed as head coach at Alton, Illinois, High School . . . Speaking of Illinois, Memorial Stadium has more seats between the goal lines than any other stadium. Sixty per cent of its 71,119 seating capacity is in this favored location . . . Can any other conference top the Big Ten in the average size of its stadia? In case someone wants to try, 59,450 is the figure to shoot at . . . Last November we stated that the highest tie game in history was the 35 to 35 tie between Hardin-Simmons and College of the Pacific in the 1948 Grape Bowl Game . . . Francis Gray of Central Catholic High of Grand Rapids, Michigan set us right on that one when he informed us that the Ottawa and Union High Schools of that city played a 40 to 40 tie in 1950. Is this the record or can someone top it? . . . Bill Luther goes from his assistant's job at Connellsville, Pa., High School to the head spot at Bellefonte, succeeding Fred Bell who accepted the coaching portfolio at Warren High School.



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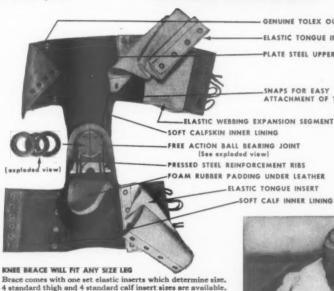
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## The Receiver

By GEORGE H. ALLEN
Football Coach, Whittier College

WE believe the following qualities are essential for top receivers: (1) Speed. (2) Relaxation. (3) Ability to feint. Bill McColl of Stanford possessed these assets along with excellent height and tremendous leg power which enabled him to out-jump his defenders. When a coach has an

end with these qualifications, he is very fortunate.

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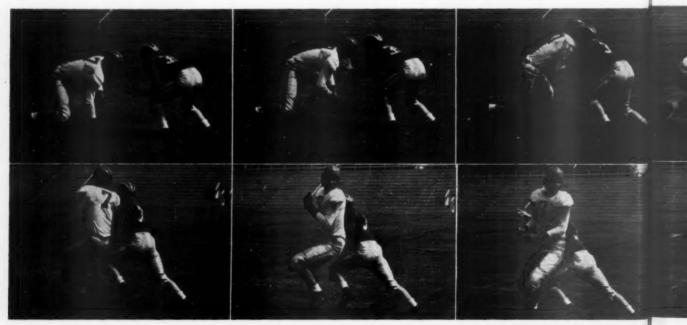
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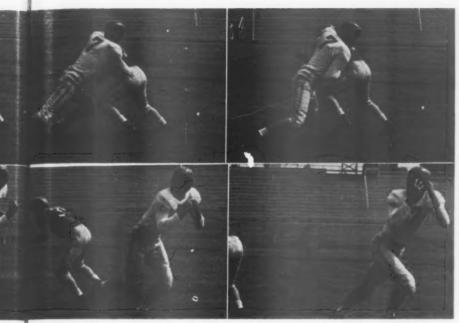
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The first thing a receiver should know is how to get loose when he is being held up; otherwise he is not a receiver. The tactic we like is the fake shoulder block and lateral slide out (Sequence A). The receiver





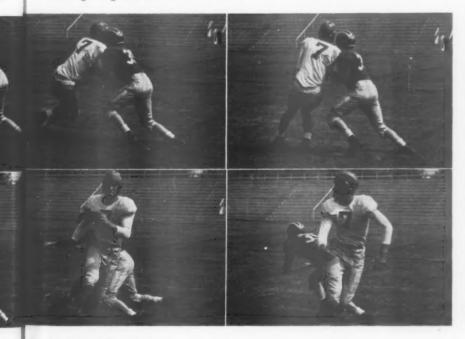
shoots as if he is going to block the tackle, and as the tackle begins to avoid the block, the receiver slides out quickly (Diagram 1). If the tackle grabs the receiver we want him to use his forearms to get free, although we do not want a wrestling bout. Another method for the receiver is the pivot (Sequence B). The receiver should simply pivot out of the hands of the defender. Another technique that we practice is the submarine (Sequence C). The receiver drops to all fours and with the same motion comes up on his feet and releases himself. After getting free he must run under

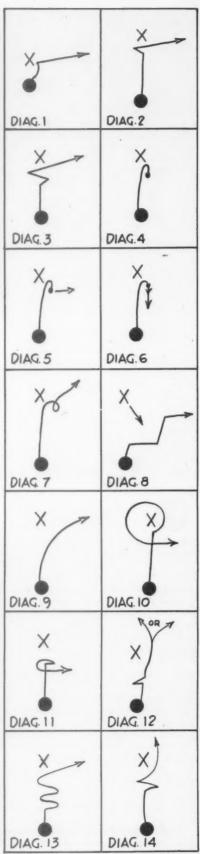
## (Sequence A)

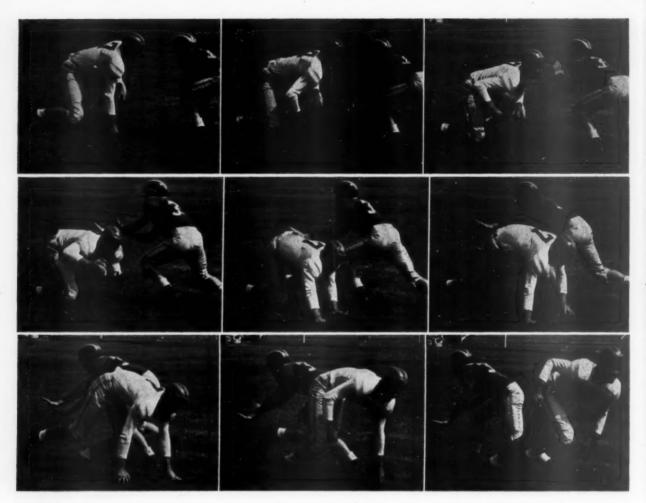
control until he makes his fakes and cuts. He should run with his hands approximately chest high. The receiver should always "look the ball into his hands."

Change of Pace: Regardless of the receiver's speed he must develop a change of pace. The pass receiver

## (Sequence B)









## (Sequence C)

who has exceptional speed may very easily use a change of pace to get free of the defensive halfback. Actually the change of pace is nothing more than a change of speed. It is effective against defenders who play close. A receiver should approach the defender at three-fourths speed, but act as if he is going at top speed. When he gets within a yard or two of the defensive back, the receiver suddenly digs in and shifts into an overdrive, whipping the defensive back before he realizes what has happened. The receiver must be one step ahead of the defense. Good receivers always keep a reserve speed. Similar to a track man running the quarter mile, the receiver starts out fast and hard to get free and in position, then he floats down the back stretch, before shifting into high gear at the 200 mark. All good receivers have that floating power.

Coaching Cues: In all maneuvers — fakes and cuts — the receiver should

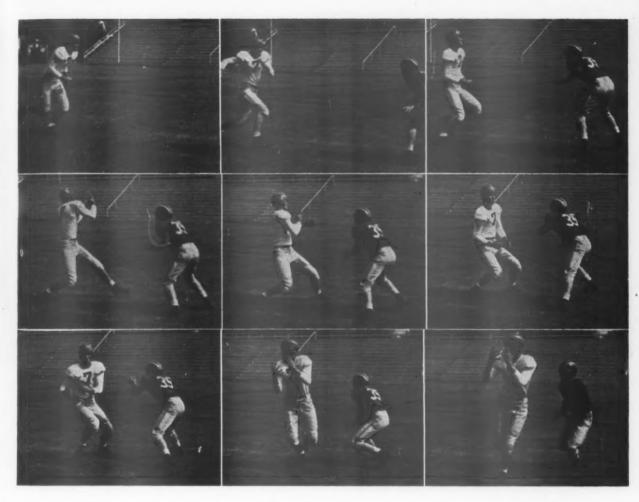
run under control. He should look through the defender watching his feet. The receiver should fake with his feet, arms, eyes, and entire body to draw the defensive man out of position before breaking in the opposite direction. In order to be effective he must be a good actor.

Single Feint Right: Diagram 2 (Sequence D) shows the receiver approaching the defensive back at a controllable speed. When the receiv-

GEORGE ALLEN learned his football under Crisler and Oosterbaan and then set out to carve quite a niche for himself in the coaching field. His first coaching position was at Morningside College where his teams won three-quarters of their games. He is starting his second season at Whittier College. Allen has prepared several excellent articles for us in the past. His article, "Defensing the Running Pass," appeared a year ago.

er is within a yard of the defensive back all body weight is shifted on his left foot as though he is actually going to swerve left. His head, body, arms, and eyes are all thrown left. As the defender moves left, the receiver pushes off his left foot to the right. The receiver's body angle to the left must be sharp. After this maneuver the receiver should run at top speed to get that precious one step advantage which is necessary for a completion.

Double Feint Right (Sequence E): The double feint is a maneuver every receiver must master in order to be proficient (Diagram 3). It ties in nicely with the single feint in getting the defender off balance. Again, the receiver runs under control. When the receiver gets close to the defense, one yard, he plants his weight on his right foot. Nearly all of his weight is transferred over to his right foot. Even his left knee is loose and bent right. Again, his head, eyes, arms, and body lean to the weight on his right foot. When the defender tips right, the receiver digs off his right foot and





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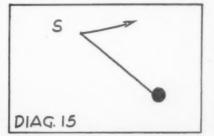
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## (Sequence D)

places all of his weight on his left foot after the first step. Again, the receiver's head, eyes, arms, and body lean to the foot side. By now the defender has recovered and shifts left. Here is where the receiver shoves off his left foot to the right, and digs hard for the pass.

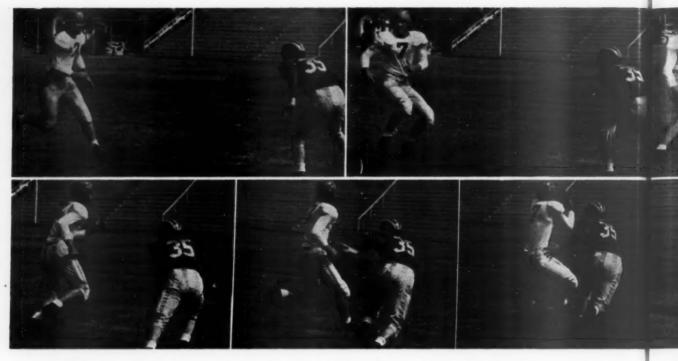
Button Hook (Sequence F): Our favorite maneuver for a receiver is shown in Diagram 4, and we have had good results with it. We have put in an entire series of passes where all of the receivers button hook in various areas. The receiver simply uses a basketball pivot. He may go to either the right or the left after the pivot. He should start his pivot no closer than three yards and no farther than five. When pivoting for a pass on a fixed spot, the receiver must stop with good balance. After stopping, the receiver pivots on his back foot toward the sideline, bringing the advanced foot around, and

describing an arc of 90 degrees. Upon completion of the turn, his body is facing the opposite direction with his hands held high for a target. The receiver should inform the passer whether he is going to pivot in or out. We do not recommend the pivot whirl which is sometimes called the jump around pivot. It leaves the receiver in poor balance to accept the ball. It should be noted that in a maneuver of this type the receiver should step back toward the line of scrimmage instead of going laterally either to the right or left. His step back should be with the pivoted foot. As he catches the ball, he must be ready to protect it from the impact of



a hard tackle from the rear. Many button hook passes are dropped because of this failure.

Button Hook Lateral: The maneuver shown in Diagram 5 may be used to go either right or left, and it blends in nicely with the stationary button hook. When using this pivot to run to the left side, the pass receiver runs directly at the defensive back as if he were going through him. When the pass receiver is approximately three yards away he steps laterally with his right foot and slams on the brakes. His weight is on his right foot. Then he brings his left foot close to his right foot and shifts his weight to the left foot. At the same time the pass receiver swings his right foot around behind, so that his body is facing the opposite direction. His next step should be with the right foot and then his left across the right, continuing to the left, anticipating the ball. The right step is a very short one, since the pass receiver's weight should be on that foot after the pivot. The same technique may be worked by the receiver in going to the right. Again,



## (Sequence E) Double Feint Right Button Hook (Sequence F)

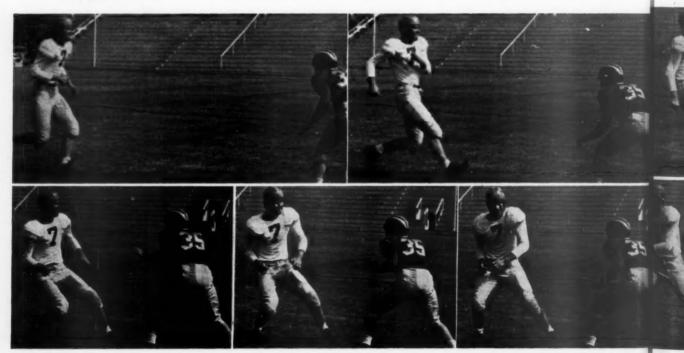
he head feints to the left before starting his pivot.

Diagram 6 shows the button hook come back. In this play the receiver runs at top speed until the defender starts to go back and hinder him. Then he stops and comes back.

In the maneuver which is shown in Diagram 7 the pass receiver simply makes the button hook come back, and then goes deep as fast as he can. Very often this is effective after several lateral button hooks have been completed.

Diagram 8 shows the staircase pattern. In this play the receiver runs flat to draw the defender up. Then he uses a change-up to go behind the halfback. This is an effective technique and may be employed against the very best defenders.

Diagram 9 shows a banana pass pat-



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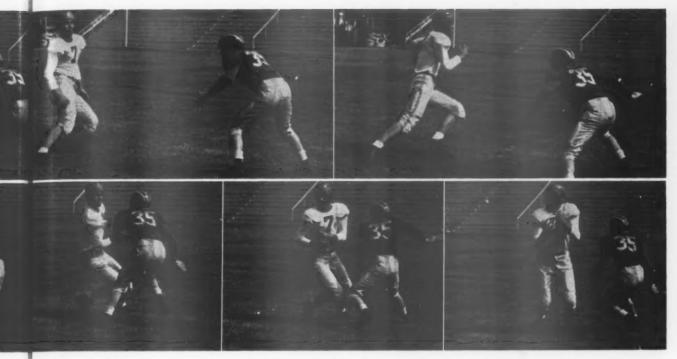
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tern to the sideline.

We call the play shown in Diagram 10 the swing around. With the swing around the receiver fakes first with his entire body, head, shoulders, arms, and eyes. Then he fakes three steps and swings back.

Diagram 11 shows the small swing around and the receiver goes on hard after his third step swing move.

In the play shown in Diagram 12

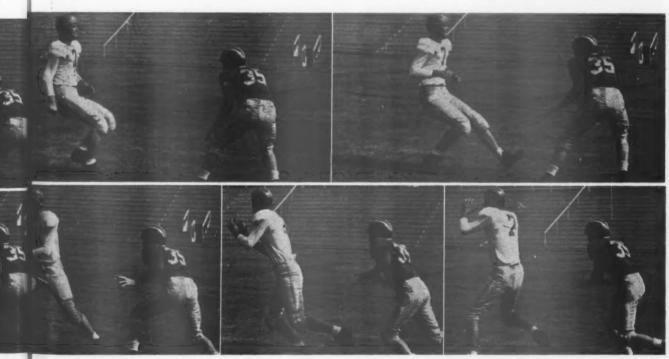
we see the firewagon pattern. The receiver starts out at three-fourths speed, makes one feint to come back as he nears the defense, and then goes wide open. We usually have our fastest receiver use this play.

Diagram 13 shows the dipsy-doodle pattern. The receiver always breaks toward the sidelines, and the ball should be thrown before he goes out of bounds

The double feint deep is shown in Diagram 14. In this play the receiver is looking to inside deep.

Diagram 15 shows a safety cut right. The receiver runs at top speed when approaching the safety man. As the safety man retreats, the receiver plants his left foot and cuts sharply to the right at continued full speed.

We encourage each receiver to have one personalized technique. In exe-



for SEPTEMBER, 1952

cuting his personal play he may do anything he wishes.

One other technique that cannot be illustrated by a diagram is used, but it is shown in Sequence G. This

is called the knee drop, and it is used when we are in a pinch even if the defense may be expecting a pass. In this play the ball is thrown low to a receiver who is on one knee.



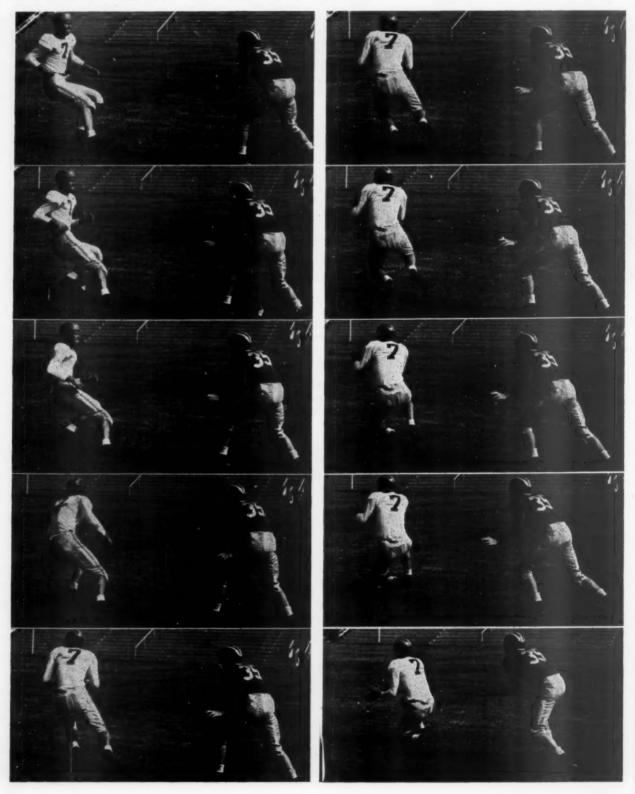
Sequence G

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## The Passer

By PAUL BRYANT Football Coach University of Kentucky

or the roundest part. We do not believe the ball may be thrown as well if it is gripped with the point of the forefinger, middle or ring finger touching the lace. Our passer is told not to grip the ball as tightly in inclement weather as he does under ordinary weather conditions.

The next thing to teach the boy is how and where to hold the ball. Since our team uses the T formation, we like to have the quarterback do some faking before he sets up to throw. After each fake the ball should be brought back to the quarterback's stomach. His forearms should be touching his hips in a relaxed position. This relaxed position helps keep the ball closer to his body and easier to hide. During the faking of the ball, the quarterback should shift his entire weight toward the back rather than toward the extension of his arm and the ball. We like the quarterback to set up ready to throw, and he should hold the ball with both hands until he is ready to release it, thus giving the quarterback a relaxed position. The ball should be in a cocked position right along the passer's ear, thus no time will be wasted in releasing it.

T Kentucky we try to sell our boys A on the idea that in order to have a good passing game a team must have good pass protection, good receivers, and a good passer. This article will be a discussion of the duties of the passer because a team cannot have a good passing attack without a boy who can throw the ball.

Because there are certain things that cannot be taught a passer, we like to find a boy with the natural ability to throw. However, there are some things that may be taught which

will be helpful.

The first thing to teach is the grip. We prefer that the passer grip the ball with the point of his little finger touching the lace almost in the center of the lace. If the point of any of his other fingers touches the lace, he will be gripping the ball in the center



**Jump Pass** 



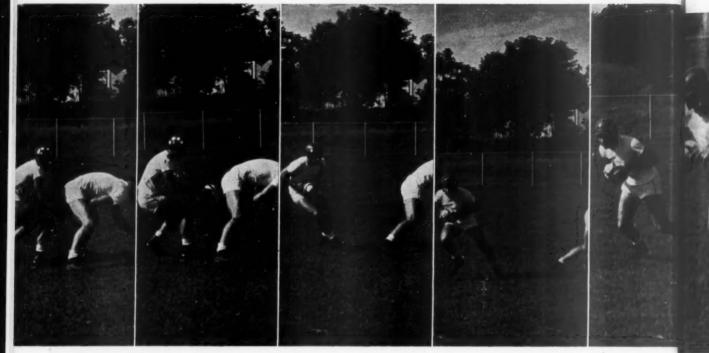












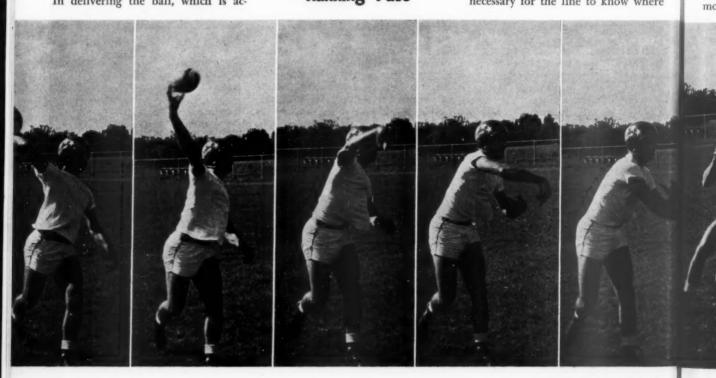
This brings us to the next point—the release and delivery. We feel that if the passer has learned the grip, and how to hold the ball, the release and delivery will come easier. Our passer is instructed to release the ball with a snap of the wrist. Very few passers have a good wrist snap; therefore, there are very few good passers. This wrist snap may be developed by drills. In delivering the ball, which is ac-

tually part of the release, the passer, except in rare cases, is told to step toward the receiver as he throws. Not only will the passer be more accurate if he steps toward the receiver, but he will also be going in the right direction to cover in case of an interception. By stepping toward the re-

## **Running Pass**

ceiver as he throws, the passer will not be throwing from an awkward position — across his body or against his own weight.

In our opinion the footwork of the quarterback is very important. He should know where he is going to be when he throws. The receivers should also know the spot from where the passer is going to throw. It is also necessary for the line to know where



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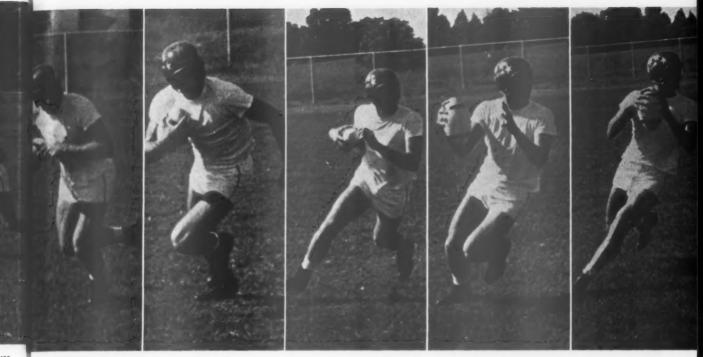
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the passer will be on a straight backup pass since the team might be using pocket protection. Our passer is instructed to retreat straight back on any pass where the line will be forming a pocket. The passer is told to set up in a hurry and stay in the pocket. He is also instructed to retreat straight back on screen passes. The quarterback should make one or more fakes to the other backs on any

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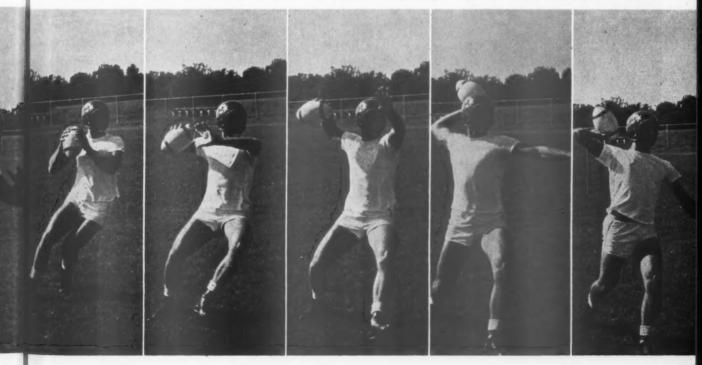
type of pass where the line is using aggressive pass protection.

The running or optional pass, we

The running or optional pass, we feel, is one of the best passes in football because of the element of surprise. No particular footwork is designated for the running pass because we feel that the passer would overact his part. Instead, he is told to throw only when he cannot run. With these instructions, the passer is expecting to

run, and he throws only when forced to do so by the defense.

Several schools get quite a bit out of the jump pass, we seldom do. The jump pass is designed to appear as a run and has very little protection. It is useful when the defense is an eightman line or is running line-backers through. The quarterback is given certain footwork to do on the jump pass so that it will look like a run.



for SEPTEMBER, 1952









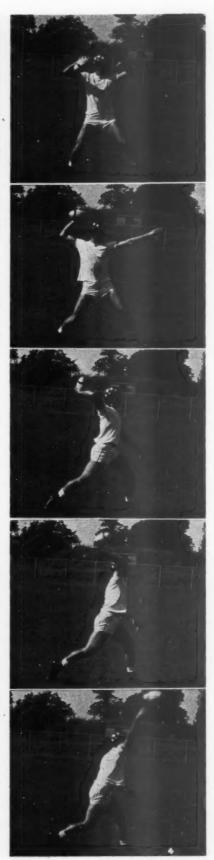


PAUL "Bear" Bryant played end for three years at Alabama. Following graduation in 1936, he served as assistant for four years at his alma mater. Two years as line coach at Vanderbilt followed, and then navy service during the war. In 1945 Bryant was appointed head coach at Maryland, a position he resigned when he assumed his present duties at Kentucky. In five years Bryant has guided the Wildcats to four bowl games, winning the Great Lakes Bowl, Sugar and Cotton Bowls, and losing in the Orange Bowl to Santa Clara.

Both Southern Methodist and Texas Christian hurt us with the shovel pass, but like the jump pass, we use it very little and get very little out of it. When Parilli was with us we had a pass that might be termed a shovel pass which proved successful on two or three occasions. Parilli would start retreating straight back, as he did on any pocket protection pass, and after his second step would flip the ball behind him, while still going toward the opposite goal line. The end would come around and receive the pass. If the ball was dropped, it was an incomplete pass and could not be called a lateral.

In summary, the points listed below should be very helpful in teaching a passer some of the important phases of passing: 1. Push off. 2. Hide the ball on the way back. 3. Set up fast. 4. Get at least seven yards deep on most passes. 5. The passer should be under control when he lands with the ball in a position to be thrown. 6. He should look straight down the field. 7. Hop back in the pocket be-fore throwing. 8. The passer should step in the direction he is throwing. He should not throw againt his body or off balance. 9. He should call to teammates to cover up and cover himself. 10. The passer should throw the ball out of bounds or hold it if no one is open.. 11. He should know his pass routes. 12. The passer should know his receivers. 13. He should know his defenders, both weak and strong. 14. The passer should know when to throw a hard or soft pass. 15. He should not throw interceptions. By that we mean the passer should not get rid of the ball just to be getting rid of it.

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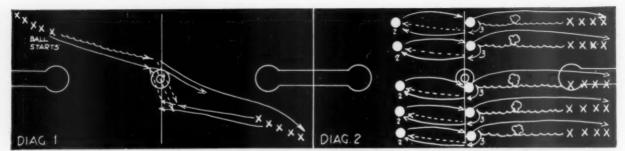
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## Some Fundamental Drills of Basketball

By FRANCIS CLARK

Basketball Coach, High School, Idaho Falls, Idaho

A Idaho Falls we do not start basketball practice until the first of November, and any boy who thinks he is a ball player is permitted to try out for the varsity. We have never had fewer than 65 boys report for practice the first week. Therefore, some of the drills which are used during the first three weeks are very simple and may be executed by large numbers of players. As the season progresses, and the squad becomes smaller, these drills are dropped and others are added to develop better coordination. Drills which fit into our system of play are also added.

For the drill which is shown in Diagram 1 the squad is split in two groups; half of the boys are in one corner of the gymnasium and the other half are in the opposite corner facing each other. Then the two groups start toward the center circle, passing to the right. We use a twohanded push pass and try to make it a chest high pass. By changing to the left we put the boys' left arms in motion without having them become aware of the fact. The players should stay outside of the center circle so they will pass the ball and not hand it off. This is a speed drill because very little time is wasted. If a pass is missed there is a player trailing who may pick up the ball and contin-ue. This drill teaches five fundamentals: 1. Catching the ball while moving to meet the pass. 2. Passing

the ball while moving toward the receiver. 3. Timing, when to break for the ball. 4. Catching the ball in stride and not jumping for it. 5. Finger tip control.

Diagram 2 shows a dribble, pivot, and pass drill. We ask the boys to line up in five or six lines at one end of the gymnasium. Each player must

FRANCIS CLARK graduated from Central State College in Oklahoma in 1933, and since that time has coached in Oklahoma, New Mexico, and Idaho high schools. His four years at Idaho Falls have been crowned with success. Clark's teams have won the district championship three times and the state championship twice, the most recent being this past spring. Clark is president of the Idaho Coaches Association and a year ago coached an all-star team at the coaching school.

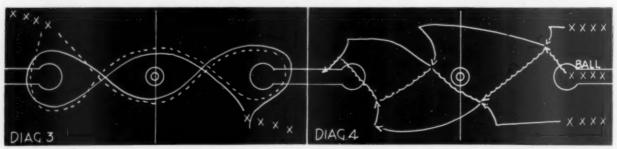
do a reverse dribble, stop, and pivot around a defensive man who is stationed on the center line, and pass to another man who is stationed about six or eight feet behind the defensive man. The players move in the numerical order which is shown. This drill teaches five fundamentals: 1. Dribble with either hand. 2. Balance and control of the body. 3. Passing

the ball around a defensive man without being tied up. 4. Following the ball in case of an interception. 5. Pivoting to keep the ball away from the defense.

In the drill which is shown in Diagram 3 the squad is split into two groups which are at opposite corners of the gymnasium. At the start of this drill we do not use a ball. The boys are instructed to run a figure eight backwards around the three circles on the floor, and the next man may not leave until the man who has just gone passes in front of the next player. After the boys have run without a ball then we use a ball, and dribble the figure eight running forward. This drill is run for balance, co-ordination, and ball-handling.

After the squad has been cut to varsity size, every day for the remainder of the season as soon as a player reports for practice he must play catch with a teammate for two or three minutes to loosen up his fingers and hands, and to get his eyes accustomed to focusing on a moving object. The drill used then is to form a circle and start by dribbling to the center, pivoting, faking, passing, going with the pass, and taking the man's place who received the pass. Then a man is placed in the center to chase the ball, and after three or four minutes two men are placed in the center to help chase the ball. If the center man

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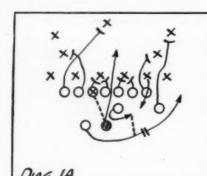
GEORGE MIKAN, "Mr. Basketball", voted by sports writers to be the top basketball player in the last 50 years. George says:

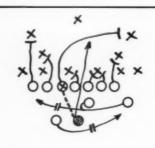
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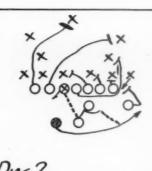
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DIAG. 18

By JESSE A. VAIL

Football Coach, Ishpeming, Michigan, High School

\*HE buck lateral maneuver, as originated by Bernie Bierman at Minnesota, was used to encircle a crashing end who was intent on stopping the fullback on a plunge through the center of the line. The end was put in his place and the avenues off tackle were again open-ed up. This function of the buck lateral is still of great importance, but we feel that it has a greater value in drawing linebackers out of position and opening up the short passing game. Many new and devastating developments in this type of offense have been perfected by such men as Charles Caldwell of Princeton and Wes Fesler of Minnesota.

At Ishpeming we are trying to in-

corporate the split T quarterback in our buck lateral offense. All of our plays start with a threat of the fullback towards the middle of the line or off tackle to both the strong and weak sides. This threat may end in: (1) a keep by the fullback; (2) a keep by the quarterback; (3) a pitch-out by the quarterback to either the wingback or the tailback. Of course, after receiving the ball each of these players has several options. We use each back as a passer when our material allows it.

It will be the purpose of this article to attempt an explanation of our basic plays and how we try to disguise each one of them by slight variations in backfield movement.

These variations have a tendency to take the linebackers' eyes off the fake or exchange which is executed by the fullback and quarterback.

#### Backfield Alignment

It was our purpose, in aligning the backfield, to place the quarterback in a favorable position to block on the defensive tackle, and to place him so that he would be able to pivot to meet the fullback at a point two yards behind the line. The wingback is placed anywhere from one and onehalf to four and one-half yards from the line, depending on the down, the distance to go, and the type of de-(Continued on page 75)

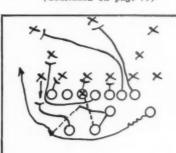
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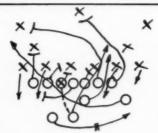
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ESSE VAIL competed at Evanston, Illinois, High School and then at Michigan State, Carleton, and De Pauw, graduating from the latter school in 1950. He has been at Ishpeming the past two years, where in addition to foot-ball he also handles track. Last spring his shot putter became the first Upper Peninsula boy to win a

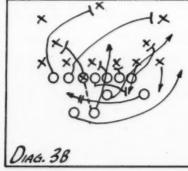
state championship.



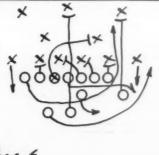
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## **Turf That Can Take it**

By BERYL S. TAYLOR

Superintendent of Grounds, Iowa State College

good stand of grass does not "just A grow" anywhere. There is a great deal more to it than sowing seed and then getting out the lawn mower. Plenty of lawn owners can testify to he amount of effort that goes into the development of a satisfactory lawn. Requirements for special purpose turf areas, such as athletic fields. are much harder to meet. It is not enough for the grass to look good; athletic fields are intended for use and "keep off the grass" signs are not sufficient to protect the turf. Instead, a wear-resistant stand of turf that can take the wear and tear of heavy human traffic must be established. Unfortunately, we do not always succeed. Large sums of money may be spent on the field without bringing about any lasting improvement, simply because the money is spent on the wrong things. Too often, well-trained, properly equipped players are handicapped by a poor field, and the wornout turf also detracts from the pleasure of the spectators.

Everyone enjoys a nice-looking lawn and thick, green grass is the ideal setting for outdoor recreation. People who attend football games get added enjoyment when their favorite sport is played against a background of smooth rich-colored turf. We have heard spectators comment on the appearance of various playing fields they have seen, so it does make an impression. Players also appreciate a

good field.

Good turf is valuable not only from the standpoint of attractiveness, but there is evidence that dense, well-knit turf is instrumental in the reduction of injuries. Uniformly thick grass coverage, plus a deep, extensive root system forms a resilient mat to cushion falls. Because of the safety factor, good turf is just as important on practice fields as it is on the main playing field. A thin, shallow-rooted turf slips out from under the players' feet. Knee and ankle injuries are greater on shallow-rooted turf which tears loose when the players turn sharply. Thin turf and hard, crusted soil increase the number of chipped and broken bones. Some coaches say that a good turf pays for itself in the saving on medical bills. Also, the lost time and the needless pain to the players are important reasons for taking every precaution for player pro-

Good turf and well-drained soil go hand in hand. This combination provides maximum usefulness. The welldrained, well-turfed field may be used with a minimum of delay after a period of wet weather, and with little harm to it.

#### Proper Construction Is Important

The turf on athletic fields takes rough treatment. Nature never intended that grass should survive under continuous mowing, and traffic by equipment and human beings. Growing grass under these unnatural and adverse conditions presents its problems. Proper construction in the first place will minimize the mainte-

nance problems later on.

Soil is the foundation for turf and a sandy, loam soil is suitable for athletic fields. If sufficient topsoil of this type is not available, then soil, sand, and organic matter may be combined to obtain the right characteristics. Proper mixing is essential. Pockets or layers of materials will cause trouble in the maintenance. Care must be taken that the top several inches are not too loose; that is, there should not be too much sand. If the top is too loose there will be too much scuffing with even a moderate amount of use. Moreover, a sand layer is detrimental to root growth; it makes for shallow rooting. A cushioning effect should not be sought by making the surface soil loose. A good soil mixture should be used and good grass coverage and an extensive living root system should be depended upon to provide resilien-

The football field is graded to provide for quick removal of excess water by runoff; but any field which must be used shortly after a rain should contain a tile drainage system. How-

ERYL TAYLOR is an authority on **B** golf courses, athletic field turfs, and in addition to serving as superintendent of the Iowa State College course and athletic department grounds, is a frequent lecturer on the subject.

ever, tile drains are expensive and they are not absolutely necessary in some cases. For those schools that use their fields only a short time in the fall for football, a type of moledrain, which is not expensive, may be employed. The drainage channels made by the mole-drain are effective over a short period of time and this type of drainage can be installed for a minimum cost.

When adequate drainage and satisfactory soil are accomplished facts, there remains the matter of suitable grasses. We will not try to make recommendations for all the regions in the United States, because the best grass to use must be one adapted to the climate in which it is used. However, we will say, that for the north central states, Kentucky bluegrass and the newer strain, Marion bluegrass, seem to be two of the best types. Another alternative is a mixture of bluegrass, Alta fescue and Zoysia japonica. This mixture makes a suitable and hardy turf for athletic fields. It will be slower to take hold than the bluegrasses, but once well-established, it can withstand a maximum of wear.

#### Good Management Necessary

If construction has been right and suitable grasses are established, then a well-planned and carefully executed management program will maintain a good turf at reasonable cost. Proper maintenance cannot be neglected; otherwise a good field will go to

#### Mowing

The right grasses need proper mowing. A height of one and one-half to one and three-quarters inches is the right height of cut for grass on athletic fields. Needless to say, suitable grasses for an athletic field must be those that will grow well at this height of cut. The field should be cut twice a week. Grass should never be permitted to grow up high and then cut down close because the grass leaves manufacture food for the plant. If a large portion of the leaf area is removed at one time, then the plant cannot make enough food. Regular cutting is required so that only a small amount of leaf area is clipped

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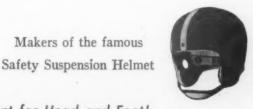
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## **Fleetball**

By RICHARD I. MILLER

Instructor in Education, University of Illinois

FLEETBALL is a fast-moving game of modified touch football. In this game any number of forward, backward, or sideward passes are permissible; every player is an eligible receiver or passer; the ball is automatically dead when it touches the ground, except on a kick-off; the playing field is as wide as it is long. The rules for fleetball are given in another section

of this article.

Why fleetball? Conventional touch football, in many respects, is a misfit in the high school and college physical education and intramural programs. Lloyd, Deaver, and Eastwood, Safety in Athletics. Philadelphia: W. B. Saunders Company, 1936 found "that conventional touch football was the most hazardous of all physical education activities, even more dan-gerous than tackle football." There is no reason to believe the situation has changed since their report. In the fall of 1949 these statistics were forcibly brought home to us when we witnessed two serious accidents during properly conducted physical education classes. A ruptured kidney, later removed, and a brain concussion convinced us that conventional touch football is not a safe game. The large majority of injuries from conventional football result from: (1) lack of skill; (2) open field blocking; (3) recovery of fumbles; and (4) punting. The last three causes are eliminated in

Physical educators and coaches pay earnest lip service to slogans such as "Play For All," etc., but sometimes their application does not compliment the theory. In a sense conventional football does not comply with the "Sports For All" philosophy. Fleetball offers opportunities for the poor player to achieve success and satisfaction far more often than does conventional touch football because everyone is an eligible receiver and the field dimensions demand more team play.

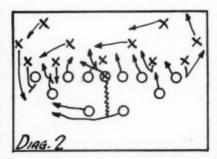
Fleetball is governed by a minimum of uncomplicated rules. This is conducive to less arguing and fairer competition. Although the rules are simple, the game offers unlimited offensive and defensive patterns.

As the name implies, fleetball represents fast and vigorous action. Short passing and fast running characterize it. In addition to its social, mental, and emotional attributes, fleetball means considerably more physical activity than conventional touch football.

Fleetball is fun. Everyone "gets into the act," and many amusing and unexpected incidents are topics for locker room conversation. Because more players take a sincere interest in the game, it is invigoratingly competitive.

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Offensive Strategy. The short passing and the running combination is the most successful offense. The ball-carrier runs until he is in imminent danger of being touched. At this point he passes the ball to a teammate. Since open field blocking is not permitted, the would-be blockers space themselves ahead or behind the ball-carrier in a position where they may receive a pass when the ball-carrier needs a friend.



Boys who switch to fleetball from conventional touch football have a tendency to use excessively long passing instead of short passes and ballhandling. Also, they must keep their eyes on the ball-carrier at all times and attempt to maneuver into posiRICHARD MILLER has been a frequent and welcome contributor to these pages. His previous articles have been on track and tennis. Miller is a graduate of Nebraska, and author of the most recent text on track. The game of fleetball which this article describes is an integral part of the physical education and intramural program at Illinois.

tion for pass reception. An unlimited variety of offensive formations may be used. Diagram 1 shows one formation that is used successfully.

Single and double reverses, fake reverses, laterals, and all varieties of passing may be used from this formation

Defensive Strategy. Effective defenses against the wide-open offense of fleetball require planning, alertness, and close teamwork by all players.

and close teamwork by all players. With small numbers of players, five to eight per side, a man-for-man or a combination man-for-man and zone defense is effective. In the strict man-for-man defense, if one player loses his man then the offense has a definite advantage. The player rushing the tailback should be especially careful that he is not eluded. In the combination man-for-man and zone the best defensive players use man-for-man on the best offensive players and the other defensive players use a zone.

With large numbers of players, nine to sixteen per side, a sliding defense is recommended. Diagram 2 shows the mechanics of this pattern.

The guards and tackles charge straight-ahead cautiously until the play develops. If the ball is coming around their side they attempt to break up the play. If the play is going around the other side of the line they turn-about and follow it. The ends are responsible for keeping the ball-carrier from running outside their positions. The outside linebacker immediate to the play moves up to meet the ball-carrier, while the out-side linebacker away from the play moves down the field to cover an area away from the play. The inside linebackers and the two safeties slide toward the play, keeping an eye on the area around them. The safeties make certain that an opponent does not get behind them.

These offensive and defensive patterns are examples of what is being used successfully. Undoubtedly other patterns are being used with equal or better success.

(Continued on page 68)



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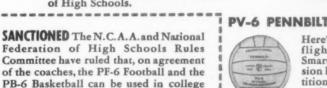
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## rograms

By HARRY LEHMANN Director of Physical Education, Swampscott, Mass.

"GETCHA' program here." That is the cry which echoes in the ears of millions of sports fans at ball parks, stadia, arenas, and gymnasiums throughout the country.

Professional sports organizations and college athletic departments increase their incomes by hundreds of thousands of dollars annually through the distribution of programs at athletic contests and the sale of advertising space in these programs. Many large high schools also benefit financially through the sale of programs. However, comparatively few small high schools take advantage of this source of revenue despite the fact that they are the ones that need financial assistance the most in promoting their athletic programs.

Not only may schools use the distribution of programs as a moneymaker, but they may also use them as an excellent public relations medium and a means of advertising coming school events. Little or no expense is involved in the distribution of programs by small schools, and practically all of the proceeds from their sale and from the sale of advertising may be clear profit.

Colorful attractive program blanks of four, eight, and sixteen pages are available free of charge from certain soft drink concerns. Others may be purchased at a reasonable price from regular program publishing companies. These program blanks feature an eye-catching colored picture on the front page. Those which are available free of charge through local soft drink agencies incorporate an advertisement on the center pages. These pages are generally used for lineups and uniform numbers. The other pages are left blank and may be filled with advertisements or information of various types.

Some small high schools use the four-page program without paid advertising as the source of a modest but steady income. No advertising is used except that of the company which supplies the blanks.

However, advertising may easily be incorporated into the programs. Three types of concerns often purchase advertisements in athletic programs. The first such source of prospective advertisers consists of concerns that do business directly with the schools. These would include those firms which provide various

types of services. Other potential advertisers are the local merchants who include large numbers of students among their customers. The third area of prospective advertisers consists of the local businessmen and organizations which are solidly behind school activities.

Programs may be sold at all athletic contests. The price per program varies in different localities. In most high schools it ranges from five to fifteen cents. They may be sold outside or inside the gate and through the stands. The best sales spot is just inside the gate or near the ticket office, since those attending the game often have change in their hands after purchasing admission tickets.

Perhaps the best program salespersons are attractive girl students colorfully attired in cheerleader type uniforms. Members of a school organization may also serve as program salesmen. The important thing is to have several salesmen, the actual number, of course, dependent upon the anticipated size of the crowd.

There are several possible methods of producing the programs. The most attractive ones are printed on blanks which feature a colored front page picture. As mentioned previously, these may be obtained from certain companies which advertise on the center pages. Blanks may also be purchased from companies which specialize in this field.

It is possible to produce the entire program including the cover locally, but generally they are not as attractive as the others. Printing is the best method of publication. In all cases where large numbers of programs are to be made up printing is advisable. If the school has a print shop the

programs can be made up there. If the school curriculum does not include printing, and the number of programs to be produced does not warrant having the work done by a commercial printer, other methods of publication may be used.

The liquid duplicator, generally available either in the school office or in the commercial education department, does an adequate job. The mimeograph machine is another possibility, but producing programs on this type of ink duplicator presents certain problems. Most program blanks are made of a glossy type paper which does not readily absorb mim-

(Continued on page 63)

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THE WORLD'S SAFEST & FOOTBALL SHOE!
NOW BACKED BY THIS EXCLUSIVE
UNCONDITIONAL GUARANTEE!



PATENTED "COMPRESSO-LOCK"
ROUND OR OBLONG CLEATS
reduce knee and ankle
injuries because they are
GUARANTEED...



ONLY SPOT'BILT Football Shoes can guarantee to eliminate injuries due to cleats coming off—because only SPOT'BILT has the patented "Compresso-Lock" cleats! Every cleat securely locked in place—yet quickly and easily interchangeable for game or practice. Cut down unnecessary casualties on your squad! Equip with SPOT'BILT—used by more Universities, Colleges, and High Schools than any other football shoe made!

See the SPOT-BILT Dealer in your area, or write direct to

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## "ATHLETIC JOURNAL

Vol. XXXIII September, 1952 No. 1

Published by

THE ATHLETIC JOURNAL PUBLISHING CO.
6858 Glenwood Avenue
Chicago 26, Illinois

MAJOR JOHN L. GRIFFITH .

JOHN L. GRIFFITH

#### Coaches Associations

A coaches association can serve a real purpose in furthering not only the interests of the coaching profession, but also the entire interscholastic athletic program.

There are coaches associations in approximately half of the states. In some of these states they are associations in name only. In others, they are of real service to their members, and to the field of coaching and physical education.

The Texas High School Coaches Association is a model of this type of organization, which other state associations might well copy and envy.

Granted that the state of Texas is blessed with the largest number of schools and the resulting tremendous number of coaches; however, the success of their association goes much deeper than size. Their success, we feel, is due to the devotion to the principles and purposes of the Association as evidenced by its members. A director, the vice president, or president of the Association is not selected according to his won and lost record. In other words, a coach is not honored for a winning team by being appointed an officer of the Association, a far too frequent occurrence in other associations. The officers of the Texas Association are elected because of the service they have rendered to the Association through the years. That the members of the Association have chosen outstanding men to head the organization is evidenced by the following past presidents who subsequently earned their reputations in college coaching -Henry Frnka, "Rusty" Russell, Blair Cherry, Ted Jefferies, Eck Curtis, Harry Stiteler, and Joe Coleman.

The Association goes even farther and employs a capable secretary to handle all of the affairs of the Association. Bill McConachie of El Paso, who holds an administrative position in the schools of that city, has served as secretary since 1947. For the benefit of other states desiring to study the Texas Association, "Mr. Mac," as McConachie is affectionately called, may be addressed at 2901 Copper Street.

The Association has also been blessed by having for one of its members a former sports writer, and to this individual has been entrusted the important post of publicity director. Stan Lambert, in this capacity, does a tremendous job of handling the press room, preparing brochures and releases, which would be the envy of most top college publicity men.

Together, these outstanding individuals, and the strong belief of all of the members in the value of the Association, have made it the most strongly knit organization of its kind in the athletic picture. But this is not enough, nor does the Association stop there. In addition to the usual coaching school conducted by most associations, a complete set of notes of all of the lectures is mailed to all members attending the school. Each member receives a subscription to two outstanding coaching magazines, one national and one local, and this is but one of the more unusual services offered. An extensive and complete coaching placement service is maintained. Free athletic insurance for forty boys, if their coach is a member of the Association, is still another service.

Above all, the Texas High School Coaches Association, through a unified voice of some 1600 members, has built one, if not the strongest high school athletic program, through suggestions to the governing body, the Texas Interscholastic League. The directors of the Association and the directors of the Texas Interscholastic League meet annually, and from these meetings have come many of the policies of the League. Few, if any states, can boast the close relationship found between coaches and administrators that is to be found in Texas.

We have elaborated somewhat upon the Texas Association because it offers dramatic proof of what a real coaches association is and can do. We feel every state should have a coaches association. Furthermore, we feel that the Texas Association could well be the model which other states might follow.

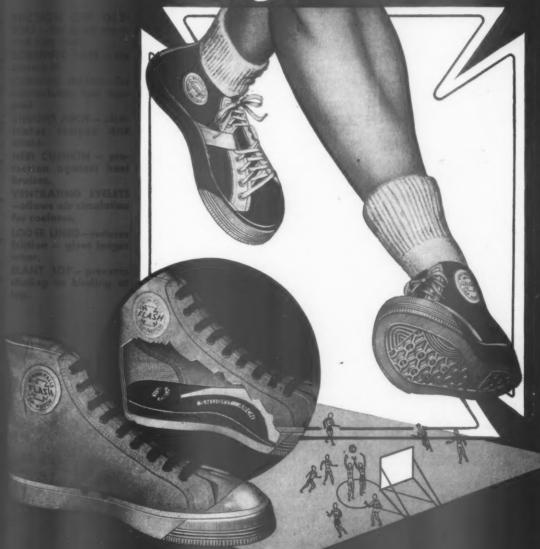
#### **Analyzing the Olympics**

THE recently completed Olympic Games were the greatest in the history of the modern series. In the matter of track and field records this fact can certainly not be disputed. Many reasons have been advanced for the large number of broken rec-

(Continued on page 79)

THE NATIONS STAR PERFORMERS...

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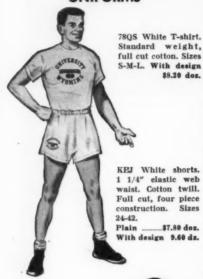
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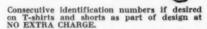
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## Coaching the High School Cross Country Team

By ROLLAND J. LANGERMAN

Track and Cross Country Coach, Walled Lake, Michigan, High School

N coaching a cross country team, the problems of the high school coach are basically the same as those of the college coach. Because the high school coach is concerned with boys who have done very little running, he will encounter problems peculiar to inexperienced runners. The purpose of this article will be to present information which will be of particular interest to the high school coach, although in many instances this same information will apply to those on the college level.

Obtaining a large turnout for cross country in the high school is no easy task. The simple process of making a "call" for all those interested in trying out for the team will not, in most cases, produce a large group of aspirants. Because many boys of this age are somewhat apprehensive about running two miles, it is desirable for the coach to talk to likely looking prospects in an effort to interest them in cross country. The most common answer given the coach will be, "I cannot run two miles." The coach should reply, "That is true. You could not run two miles now, but after practicing running for a short time you could." Further elaboration along this line will normally get the boy to try out. Although some coaches may frown on asking boys to come out for the team, it has been found that many boys are afraid to run cross country, and just a little encouragement from the coach is all

While getting boys to come out for the team may be a difficult task, keeping them interested is by far the greatest problem of the cross country coach. In contrast to other sports like football and basketball where the game situation holds the players' interest, cross country itself lacks this natural incentive. It is essential, therefore, that the coach use his knowledge of the sport and his imagination to the utmost in an effort to reduce the monotony of running and to make the sport as interesting as possible. It is to this particular problem that the remainder of this article will be devoted.

To a certain extent any team will reflect in its actions the spirit of its

coach. An indiferent coach will have a small turnout which in turn will affect the success of the team. Schools make their greatest mistake when they assign men to coach cross country who lack knowledge of the sport and whose only interest is the few extra dollars they will receive for the extra work. An interested coach will produce an interested squad, and for the protection of the young runners themselves, it is sensible to select a man who has some knowledge of the sport. When a school chooses an individual who can meet these requirements it has made a wise choice.

A good schedule will help tremendously. Too frequently a schedule will contain only three or four dual meets. The old saying "all work and no play" certainly applies here, for the only play in cross country comes during the meets. Any boy who practices running for several months deserves more than three or four chances to show what he can do. A good schedule that will interest the boys should include at least five to seven dual meets, depending on the number of larger meets to be attended. The addition of conference, state, or invitational meets to the schedule will create more incentive.

The selection of a course is an important factor in maintaining interest among team members. In many instances, the coach has no control over the terrain which he must use for a course. Often roads are the only possibilities. But too often coaches fail to use their imaginations in constructing their courses. Golf courses, parks, and fields are very desirable when it is possible to use them. Every effort should be exerted to arrange the course so that the spectators can see more than just the start and the finish. Although the terrain available may not be conducive to a good course, coaches should use their imaginations to provide as interesting a course as possible. A good course will aid considerably in reducing the monotony of running, especially during practices.

The easiest way to discourage a boy who is out for the first time is to have him run a mile or more at the first

(Continued on page 66)

for

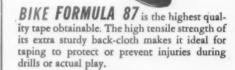
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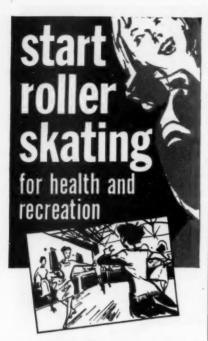
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## A Community Football Clinic

By PETE NEWQUIST

Football Coach, Sault High School, Sault Ste. Marie, Mich.

DURING the fall of 1949 the people of Sault Ste. Marie, Michigan were invited to attend the first annual football kick-off picnic. Since our main purpose was to acquaint the community and the parents of the prospective football players with the entire high school football program we combined the picnic with a football clinic. Everyone agreed that it was a success and should become an annual affair. The picnic was held in the high school stadium because that atmosphere seemed especially conducive to friendliness and informality.

The picnic-clinic was held during the first week of football practice and scheduled for 6:30 P.M. so that the boys and their parents could attend. All were asked to bring picnic lunches and beverage and dessert were donated by the local merchants. We gave all of those in attendance name tags

PETE NEWQUIST played center on the Santa Ana, California, Junior College National Championship Football Team of 1942. He received his degree from Western Michigan and his master's from Indiana. In 1949 Newquist was appointed head football coach at Sault High School.

to wear so that everyone could become better acquainted. These were made in the shape of small paper footballs.

A few words of welcome from the superintendent of schools and the introduction of our football coaching staff made up the first part of the program. Then the coaches had an opportunity to give the townspeople an idea of what they were trying to accomplish. They stated ways in which the parents and players could co-operate and what they, in turn, could expect from the coaches. Training regulations, scholastic requirements, daily practice schedules, etc., were discussed briefly.

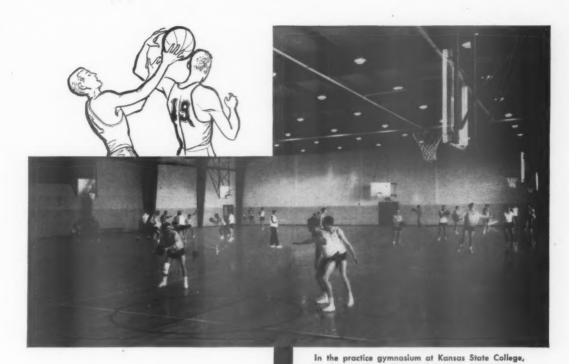
Then a demonstration of football equipment was presented. Our primary aim was to give the audience an understanding of this equipment and the protection it affords a player. One of the boys, wearing swimming trunks, acted as a model. We placed the football uniform on him piece by piece. The vulnerable spots of the body were pointed out and we showed how the various pieces of equipment were designed to protect those areas. We felt this was very important because parents are frequently disturbed about the possibility of injury to their boys. The equipment was then passed through the group for personal inspection. We tried to keep the entire program on an informal basis so that everyone would feel free to ask questions at any time.

Finally, we gave a short explanation of our formation, the T, and described a few basic plays, The T was used for the first time at our high school the previous year and many of our future spectators knew nothing about the way in which it operates. We realized that if the group could become familiar with even one or two plays, they would find it more interesting to watch the games during the season. By way of explanation, we gave the name and function of each position in the formation. Then we used four backfield men and a center to illustrate a few of the plays. The boys demonstrated a quick-opening or dive play and then showed how, by faking this basic T formation play, pitch-outs and off-tackle plays are run. A few pass patterns and receiver stunts were also shown. As the season progressed it was gratifying to see that a number of people recognized those very plays which we had demonstrated during the clinic.

Following the program, the entire group was taken on a tour through the field house for a detailed inspection of the dressing rooms, equipment room, shower, and toilet facilities.

The local newspaper and radio station, which were contacted several days before the picnic, furnished excellent publicity. A photographer from the paper was on hand for the program, and several pictures appeared in conjunction with the news story the following day.

Our coaching staff feels that this picnic-clinic idea could be used in connection with any of the other major sports. As for football at Sault High School, the picnic-clinic contributed a great deal toward improving the relationship among parent, player, coach, and community.



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ARVIN PARR graduated from Hartwick College, served with the 106th Division, and was commissioned in France. Upon his return to the states he was assigned to Fort Benning where he coached several championship squads. Since the war he has been at his present location where he has gained recognition as an outstanding authority on the six-man game. He has been called on to address several clinics on the sport.

## Basic Defense Against Six-Man Spreads

By MARVIN J. PARR

Football Coach, Pine Bush, New York, Central School

THE very nature of six-man football lends itself to speed and an offense which oftentimes incorporates a spread play or even a series of spreads. Because some teams have come to rely on the spread formation as their basic offensive weapon, the teaching of a defense against this formation has become a task for many coaches. The following article is the result of the thinking of our staff on this matter.

To set up defensive assignments for balanced spreads, we employ the principle of placing each defensive player as near his assigned man as is possible (Diagram 1).

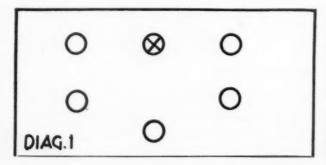
Our defensive ends have the assignment of forcing the play to their inside against this type of offense. The ends are also responsible for the halfback on their side. For example, the defensive left end, A, as is shown in Diagram 2, becomes responsible for B, while our defensive halfback, C, is responsible for the offensive right end, D. The center plays slightly off the offensive center to the long side of the field, and bumps the center on his charge to break his initial stride. Then the defensive center becomes the chaser and is responsible for the ball-handler. This puts the responsibility of covering the offensive center on the safety man, and it becomes necessary for us to give ground since the safety man may be brought so near to the line of scrimmage he is made almost valueless beyond the coverage of one specific man. The defensive right end, and the right halfback assume the same responsibility for the offensive left halfback, and the left end, as described for the defensive left end and the left halfback.

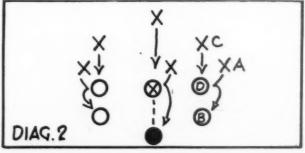
This may be only the defensive pattern because variations in the offensive attack allow for a great variety of ball-handling. It will be noticed in Diagram 3 how this system, with flexibility, may be employed to stop half-backs in motion. Let us suppose that our offensive team in its direction of advance is near the left sideline. This would place the defensive center in the position shown in Diagram 3. When a halfback goes in motion, the end assigned to him follows his motion. A play of this type is set up to take advantage of a defensive player's momen-

tum. For instance, if we make our defensive center responsible for the player who has possession, if and when A gives the ball to B, possession changes. Therefore, the assignment for our defensive center changes. This change of assignment must be understood perfectly by the defensive center and the ends, since it necessitates having one of the ends shift his attention to the offensive player previously covered by the defensive center. It is our belief that through this type of maneuver we eliminate the possibility of having the defensive center move away from the direction of the ball. By so doing, our ends are left free to keep the play up the middle, and the greater part of the responsibility for stopping the play is placed on the center.

We have also used a four-man defensive line against spreads. This four-man line has been used in cases where the ball-handling has not been particularly accurate or when we have noticed that the inexperience of the members of the opposing team causes them to be careless in carrying out their assignments when they are being charged aggressively. It becomes necessary, in view of the decreased defensive strength in the secondary, to have our defensive ends charge into the offensive ends to slow down their initial advance and break their stride. This charge by the defensive ends takes a great deal of responsibility off our halfbacks who must play close. Since some concession must be made in each defense, we plan to allow a quick advance of three to four yards on these plays. In other words, we still play the defense loose enough so that the play may be completed, but try to contain the advance so that in any series of four downs the advance will not cover the required 15 yards. We have a pre-arranged set of signals to let the other defensive men know when we are going to attempt to upset the offense with a gamble. This must be done at intervals so our team will not be typed to a static defensive pattern. Also, it helps to break any sustained advance.

One very important factor which we have not considered in the use of the four-man defensive line against the





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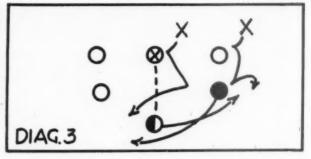
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spread is the defensive assignment of one of the two inner defensive linemen. On a defensive signal, usually given by a halfback, one of these men is designated to make the initial charge, while the other is assigned the task of scuffling at the line of scrimmage with the offensive center to try to unbalance him and make him valueless as a potential receiver. On certain occasions we have allowed both of the defensive men to harass the opposing center. Sometimes this causes a bad pass by a nervous or inexperienced player. Since these bad passes frequently pay off in gaining possession of the ball, this defensive maneuver turns out to be an offensive play.

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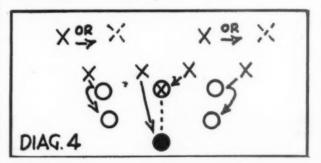
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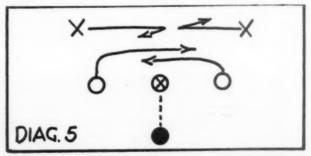
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In this type of defense it is of paramount importance that the defensive halfbacks do not lose contact on a switch of assignments when the offensive ends employ the tactical maneuver which is shown in Diagram 5. Therefore, many hours are spent developing this technique, and we work the same way a basketball coach does in developing the same type of play in a man-for-man defense pattern. No objection has ever been made by fellow basketball coaches when they receive players who have been schooled in this art during the football season. On special occasions we have pressed into service for these specific defensive halfback tasks personnel more familiar with and better adapted to basketball than football, and the results have been gratifying.

This article does not contain a complete repertoire of defensive variations against specific and peculiar plays. These plays vary with each opponent so that a week-to-week variation is a necessity.





## America's Olympic Broad Jumpers

By ELVIN C. DRAKE
Track Coach, University of California at Los Angeles

ORDINARILY we confine our track material to the spring; however, this being Olympic year we are running each month an article on America's field representatives in the recent Helsinki Olympics.

In this study of the broad jump we will find many similarities and some differences in the style of the jumpers. Since the pictures were taken of the three top broad jumpers in the United States, they must show the basic principles of the broad jump, which are to be found in every successful jumper. Because we have been closely associated with George Brown, we will analyze his style of jumping first.

The study of the broad jump may be divided into four parts: the run, the lift, the carry while in the air, and the land. We will attempt to show the better points of each jumper in

these four parts.

Illustrations 1, 2, and 3 show George Brown at the finish of the run. In Illustration 1 he is just one step away from the take-off board, and is showing a very fine gather which will carry into the step on the board. Illustration 2 shows that while the gather to lift is well done, his last step is too far away from the take-off board. This will cause him to reach and will place him in a poor position to lift. Illustration 3 shows the last step onto the board. In this picture Brown's knee is bent slightly and should give sufficient lift if his body is directly on top of his leg.

Illustration 4 shows the beginning of the lift off the board. Brown is well over the leg, his head is up in good position, and his right leg is being brought up to assist in the lift.

Illustrations 5, 6, 7, and 8 show a continuation of the lift, and one running step while in the air. It will be noticed in these pictures that Brown's head is up and his body is carried in a fine balance.

Illustration 9 shows Brown's actions at the highest point in the jump. His arms are thrown up, his hips are rotated forward, and with this forward rotation of the hips, his legs are allowed to lag behind his body, and there would almost seem to be a loss of balance.

Illustration 10 shows Brown's recovery of good balance, with his legs beginning to come up and forward in order to reach out for added distance.

Illustration 11 shows a recovery of body balance. However, we believe in this picture Brown's head should still be up and both his legs and arms should be higher. As a result, it will be noticed that from this point, Brown's arms never reach a proper height.

Illustration 12 shows the position in preparation for the land; Brown's legs are still coming up, his knees are well extended, but we would prefer that his hands and arms be higher at this point. We also believe that more distance might be had if his head and eyes were up at this point.

Illustration 13 shows Brown's legs and body in a very fine position, but his head should be up slightly, and his arms should be reaching out with

his hands above his knees.

Illustration 14 shows the same fault as is shown in Illustration 13. However, it is possible that just before the land there was a final reaching out with the arms, which would change this into a very fine landing position.

Illustrations 1, 2, 3, and 4 show Biffle at the finish of his run and the gather, in preparation for the lift off the board. Illustration 2 shows the last step gather, and Illustration 3 shows the body in good position. However, there is a reaching for the board which brings the knee almost to full extension and does not make for a good lift. Biffle must have realized this, as the picture shows a take-off just on the back edge of the board.

LVIN "DUCKY" DRAKE graduated from U.C.L.A. in 1926 where he served as track captain, competing in the 880, mile, 2-mile, and relay. In 1929 he returned to his alma mater as assistant to Harry Trotter. Since then he has served also as cross country coach, freshman coach, and head trainer. In his long stay at the Westwood school he has produced a number of outstanding track men including Pat Turner, Jack Robinson, Bill Lacefield, and George Brown, all 25 foot broad jumpers.

We do not believe that he intended to take off with a full extension of his knee.

Illustrations 5, 6, and 7 show the lift off the board. Because of the more extended knee, it is not possible for Biffle to have the same kind of lift as Brown. It is our belief that these







illustrations show a style of running off the board, rather than a lifting off the board. The main lift in this jump is done with the ankle and foot.

Illustrations 8 and 9 show that there has been lifting off the board, and fair height is attained. There is no rotation of the hips as in the case of Brown. Biffle's left upper leg contines to be brought up with his body balanced and over his leg.

Illustrations 10, 11, and 12 show Biffle's arms being thrown up with considerable force. This is done as a last effort to attain height and get his body in position for the land. Illustration 11 shows a very fine reach with the left leg. In Illustration 12 Biffle's arms have been brought into a very fine position, and his right leg comes forward to give an extension of both legs. If the left leg extension, which is shown in Illustration 11, had been held and his right leg brought up to the left, Biffle would have had a slightly better finish reach.

Illustration 13 shows Biffle's arms in good position, head up in fair position, but his eyes are too low. His feet and legs are coming down too quickly and his knees are beginning to bend

Illustration 14 shows the result of Biffle's knees being bent, and his feet are too far below his hips at the instant of contact with the pit.

Illustrations 1, 2, 3, and 4 show the final approach and gather as Gourdine comes onto the board. In Illustration 1 on Brown and Illustration 3 on Gourdine both jumpers are in approximately the same position. Both show a very fine gather into the board. Our observation would be that the next picture shows Gourdine coming into the board with a much straighter knee, similar to the approach of Biffle.

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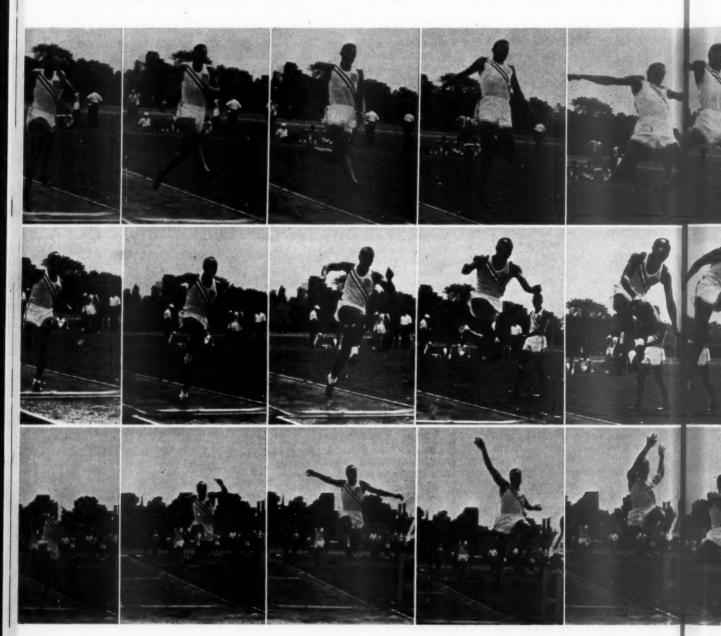
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Illustrations 5, 6, and 7 show the lift off the board. Gourdine's arms come up much faster than either Brown's or Biffle's, and we believe that he gets more help from his arms in his lift than do the others. All



three show a fine body balance.

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Illustration 8 shows Gourdine at the top of his lift. His hips are rotated slightly forward. His position is a medium between those of Brown and Biffle.

Illustration 9 and 10 show the extension of Gourdine's left knee and the reaching forward with his arms. His arms, although not together, are in a good position at this stage of the jump.

Illustration 11 shows Gourdine's right leg being brought forward and up to his left leg. His body is extended well out over his legs, and all tend toward reaching forward to attain maximum distances. We want

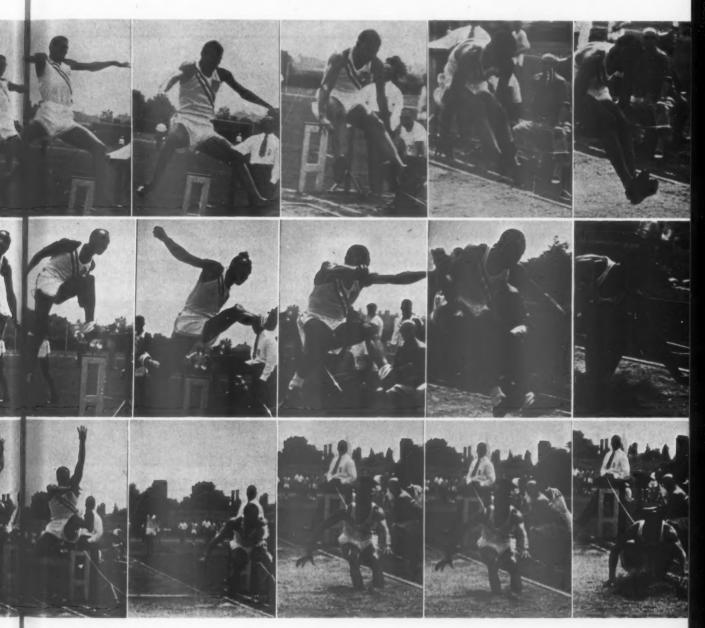
to make the same point on all three jumpers; they are not looking out beyond their approximate landing positions. This failure tends to bring them into the pit too soon.

Illustrations 12, 13, and 14 show Gourdine's position after his feet have dropped into the pit. There is no turning motion on the land and his body comes forward directly over his feet. Many fine jumpers use this type of landing, but we do not believe it is as efficient as using the feet for a pivot point and turning the body to the side.

The broad jump is an event which takes a great deal of practice on the different parts. We do not believe it is necessary for a boy to jump for distance every day. He can break the event down and work the several parts: the run, lift, and land.

In the pictures we are attempting to analyze, we have only one jump on which to base our analysis. These may have been good jumps, or they may have been poor in the minds of the jumpers. We do not know the distance on any jump. On any one jump the boy may realize, after he leaves the board, that this particular jump was not good. This realization would tend to make him careless with the rest of his jump and might be a contributing factor to the type of land-

(Continued on page 60)



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## **Defensive Basketball Drills**

By LEO FRANCIS KEEFE

Basketball Coach, Rutland, Vermont, High School

RUTLAND High School's Red Raiders have invariably been described as a team that never appears to be sensational and flashy, but always well-grounded in fundamentals. This complimentary description of our team has paid dividends, and the fact that it is recognized by other coaches, the press, and the public has been a source of great pride to us.

Although offensive fundamentals are not minimized at Rutland, we have always felt that offensive play will take care of itself, providing a coach has talented boys and a stable defensive unit. Although little time is spent on set plays, tap plays, and out-of-bounds plays, we do use them for spot situations especially after time outs. These plays are used with the thought of maintaining or obtaining possession of the ball. Offensive maneuvers in ball-handling, footwork, and shooting are also given their prop-

Our principal task is to develop the individual defensive traits of the players and our team defense. Our defense, which is man-for-man, is used with two purposes in mind. Naturally, defense must be good and close to stop good players and good teams. However, we use our defense to set up and control our offense. Many coaches will agree that most baskets are scored off of the mistakes which are made by boys on the opposing team. If our defense can force the opponents to make mistakes, we can secure the ball, strike, and score before the opponents set their defense.

To develop this type of defensiveoffensive, our man-for-man defense is set according to the type of offensive play used by the opponent. If our opponents shoot their way out and from the deep corners, our defense is expanded to put pressure on them. If they like to set up and drive off of screens, we contract our defense, plug the middle, and depend on shifting when our men are picked off. If possible, we may pick the opponents up before they get to midcourt and try to throw their offense off stride. Under any of these variations our boys are encouraged to use triple vision. They must check their opponents with one eye; they must watch the ball and the passer with a second eye and be ready for pass interceptions; and they must use the third eye to

keep the down-court area in their vision so that they will be ready for situations which may develop in the event of interceptions. We usually spend about 20 minutes each day developing our team defense, with the last 5 minutes used for breaking when interceptions develop. This team defense varies with the scouting reports we have on our opponents.

In developing individual defenses, we adhere to the normal defensive suggestions for body balance and footwork. Both must be right or there is going to be trouble. A boy cannot stand erect and be ready to move with his opponent, nor can he cover his man effectively by crossing his feet as he moves. Therefore, we do use drills to develop good posture and footwork, and these weaknesses are brought to the attention of the players as they occur in practice or games. The conventional wide base, with the feet spread apart, knees bent, and hips lowered is used. Our players are taught to use their feet in much the same manner as a boxer. The guards are encouraged to take short steps and at the same time keep in contact with the floor as much as possible. In moving, one foot is advanced, while the other foot slides after it. A boy must always be ready to move with the play. For instance, as soon as the opponents recover the ball, if a boy is out of the play, he should take a step backward and be ready to move with his maneuver. Too many boys fail to start their momentum until the opponents have moved their offense up to them and then it is too late to start.

When our players are to be shown correct posture and footwork, we make sure that the gymnasium is cleared of spectators. Their presence might tend to embarrass the players and make the drill ineffective. Then the squad is lined up and the correct position is demonstrated. The squad is then asked to assume the correct position, and at given signals, the players are told to move forward, to both sides, and backwards never changing their posture. We encourage the boys to keep their hands moving constantly with one hand up and the other low to aid interceptions. After correct balance has been developed, another drill is used, whereby offensive players dribble the ball up and down back goes H ance pro secu how to s stati bety Our that way ed. feat keep A weal

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wi is se the court veering to the right and to the left. At the same time, the defen sive player, in proper stance, moves backward to cover the dribbler as he goes through his dribbling tactics.

Having developed proper body balance and use of the feet, our next problem is to teach the boys how to secure the proper defensive angle and how to maintain it. It is not difficult to show a boy why he should always station himself at the proper angle between his opponent and the basket. Our main problem is to teach him that he must anticipate plays and always keep himself correctly positioned. Many basketball players are defeated defensively because they do not keep themselves positioned correctly.

A good ilustration of this type of weakness is seen in the case of the feeding or trailing guard in a set offense play. Invariably, this boy will leave himself stationed on either side of the back court when it is just as easy and practical to move over to the center of the back court. In the first case, let us assume that the opposition breaks up the play, and starts its own offense. Here the guard finds himself on the side, unable to stop or to hold up the play with two or three opponents driving on him. On the other hand, if he has anticipated the play and has stationed himself in the center of the court, he will find he is able to cover the two-on-one or threeon-one offense of the opposition or hold it up until he secures aid from his teammates. Another example of faulty position is commonly demonstrated in covering tap plays which are controlled by the opposition. By failing to keep the angle, the defen-sive player will find himself the victim of a simple tap play or a long tap. Constant checking of these faults in practice is the only effective drill we know of which will stop these errors.

Another common fault among basketball players is the tendency to

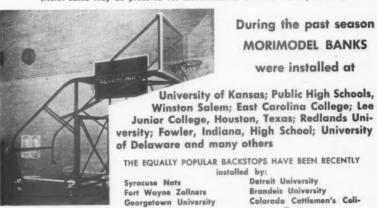
EO KEEFE'S teams have won three-quarters of all their games over a ten-year span, using the theory that the best defense is the best offense. During his ten years at Rutland, Keefe has won two state championships and was runner-up once. In their own league his teams have finished out of the first division but once, while winning the title four times. Keefe is line coach in football and has seen his teams win six league championships.



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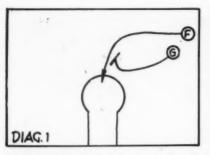
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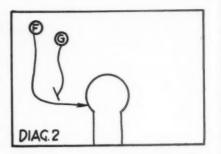


lunge needlessly for the ball when it is held or dribbled by an opponent. As soon as the lunge occurs, the offensive player is ready to move by the defensive player who is off balance. This careless fault may be stopped by constant checking. Out of this weakness develops a tendency on the part of the defensive player to trail and continue to slap at the ball as the offensive player moves away. We insist that instead of trailing and continuing the lunge, the defensive player must move as quickly as possible to regain the defensive angle between the offensive player and the basket. Several drills are used to correct this fault.

First, an offensive player is stationed on one side of the court and a defensive player is placed between him and the basket. The ball is fed to the offensive boy, who fakes to draw in his guard, then dribbles laterally, and then into the basket leaving his lunging opponent behind. The object of this drill is to keep the guard from trailing and lunging at the ball while his opponent moves in. We insist that our defensive players drive to a position between their man and the basket and then direct their guarding technique at the opponent. A similar drill may be worked from the back court.

Diagram 1 shows the first drill, while Diagram 2 shows the second drill. These drills are good. Demonstrations which show the wrong maneuver are also good. However, only by constant checking may this common fault be eliminated.

Defensive play is the most difficult phase of the game to teach. We try to mix up our drills to relieve the monotony, and in most of them a little competition is added to keep the boys enjoying their activity. Two-onone, three-on-one, and three-on-two drills not only help the offensive passing techniques, but are also very good defensive drills. By making a contest out of each drill and keeping score, the guards are pitted against the offen-



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sive boys. The boys lose themselves in the activity, we get good game conditions, and at the same time develop offensive and defensive prowess. In these outnumbered situations, the players are told that the main function of the defensive men is to stall the offense until help arrives. Gestures, talking, and fake movements are encouraged and demanded. We try to slow up the speed and upset the pattern of the offensive group until help comes. At the same time, it is our hope that we may cause one of the offensive men to make a mistake which may result in the loss of the ball by his team.

Another good drill combines three activities, namely, rebounding, passing, and three-on-two scoring situations. Competition is added to this



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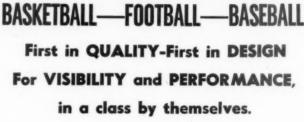
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drill to add flavor. We throw up long shots at the basket, and deliberately try to miss the basket. Two boys rebound against each other in an effort to secure the ball. In this drill perfection in rebounding is taught and stressed. The successful rebounder feeds out to one of a pair of offensive players stationed at midcourt with one on each side. Stressing a good pass-out after the rebound and a good cut to meet the pass on the part of the offensive player, a three-man at-tack using the old Wisconsin criss-cross develops. To stimulate this drill, only the successful rebounder is allowed to get into the play, while the other rebounder goes back to the end of the line. We get a great deal of fun out of this drill as well as some real aggressive rebounding. After five minutes of this activity two more defensive men are stationed at the other end of the court. These boys try to break up the three-on-two offensive pattern. In this way two good defensive drills are combined with a very good offensive drill to get a good lively 15-minute workout.

Another defensive maneuver which sometimes pays dividends and can be used in the right spots during a game is to move suddenly from a loose halfcourt defense to a full court close pressure defense. We have several drills to develop this press, and to determine what men on the squad are best qualified to be put on a press. Four boys are selected, (two boys who are wearing shirts and two who are not), and these boys are placed in a rebounding position. We throw shots at the basket, and if one of the boys who is wearing a shirt recovers the ball, he and his teammate go on offense. The other two boys immediately go on defense and press close all over the floor. The boys like the excitement which is created, and interest is added to the drill by keeping score.

After this drill, we move to another drill which is developed under saner and more game-like conditions. Five boys are put on offense and five boys are assigned to cover each of these boys closely as the ball is put in play down-court. We play the defensive man covering the outside man loosely, and use him to cover the ball and help double-team the man to whom the ball is passed. Besides giving us good defensive pressure, it also gives our offense a good workout under pressure. What is more important, we find out what boys are able to exert pressure on our opponents as well as the boys who are able to react well to this kind of pressure. In the late min-

(Continued on page 61)



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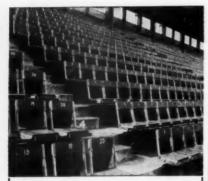
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## Are Statistics Necessary?

By STAN WARD and HUGH S. GREER

HE trend toward keeping basketball statistics and their practical value has met with a mixed reaction on the part of coaches on all levels. We find at one extreme those coaches whose every move is dictated by the figures their battery of statisticians have accumulated, while at the other extreme are those who scoff at statistics, or are even unaware of their existence. As one coach remarked, "Give me five good big men and you There is no can have the statistics." question, however, that the trend toward statistics has made progress in basketball as more and more coaches recognize their worth.

We are certainly not extremists, but in our opinion statistics properly kept and interpreted, are an invaluable coaching aid that has always paid rich dividends both during the regular season and in pre-season practice sessions. All coaches like to think of their minds as a form of mental tape recorder on which every action is indelibly inscribed and examined later at their leisure. With the speed and complexity of the modern game this is no longer sufficient and outside aids are definitely needed. We have not only discovered facts about our teams and individuals that would surely have been missed, but we have found statistics to be extremely valuable in proving to the players where weaknesses and strengths lie.

Finally, statistics act as an everpresent check which quickly determines when a player is starting to slump or improve in any department of the game, something which even the most discerning of coaches might not spot immediately. Then too, basketball players, like other people in this scientific age, seem to be profoundly impressed with facts and figures which are recorded in black and white.

We do recommend that statistics be used with discretion since publicizing them constantly may do more harm than good and might even develop a complex among certain players which would make them overcautious. We keep statistics principally for our interpretation and analysis, govern some of our policies and methods by the results, and mention them as actual statistics only to the squad or individuals when some direct benefit may result. Certainly, if handled wisely,

TAN WARD is a firm believer in I the value of basketball statistics, so much so, that he is co-publisher with Hugh Greer, basketball coach at the University of Connecticut, of the "Hugh Stan Manual of Basketball Statistics." This is Ward's seventh year at Suffield Acadamy where his teams have won the New **England Prep School Championship** 

no harm can occur, and the coach who does not attempt to know his ball club better through their use is giving away a potential advantage that in this highly competitive field might well invite disaster.

Perhaps the case for keeping statistics might be best proved by reviewing briefly the statistics we feel are important and how they might be interpreted to the advantage of the coach and his team.

#### Rotation Scoring Table and Combination Chart

The rotation scoring table enables the coach to follow the sequence of scoring which would reveal through definite patterns a team's peculiar tendency to let down in certain stages of the contests. For example, there are many teams that habitually start slowly or slump badly just before or after the quarter or the half. In the case of slow starts the length of the warm-up might be a factor, while the method or amount of substitution might be a factor affecting the slumps once the periods are under way.

No. 13 replaces No. 3 for City Time 2 1/2 State 2 4 6 8 10 City 2 3

No. 3 replaces No. 13 6 10 8 12 | 13 14 | 16 | 17 | 18 | 20 | 7 9 11

The accompanying illustration of a rotation scoring table shows not only the sequence of scoring and the time of scoring, but also acts as a combination chart. The coach of City might well ask himself if this is

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part of a general pattern. Why do we start slowly? Is No. 3 helping the team? Were other members of the team in need of relief after eight minutes had passed?

Undoubtedly, other factors are involved but it is clear that a potentially dangerous situation exists and corrective action is necessary. Other forms of combination charts may show that a team might tend to slump or spurt when certain individuals or combinations are used. Certainly the charts should help show what the best combinations are, how substitutions affect team efficiency, and how frequently substitution is needed.

#### Shot Chart

The shot chart will determine team and individual shooting strength and weakness, thus enabling the coach to correct poor shots and utilize strengths. It tends to show that many teams run one way, thus creating their own strong side which may be spotted and played by an alert opposition. This may be a natural tendency, or may result from personality differences, but in either case it should be corrected immediately to insure proper offensive balance.

#### Offensive and Defensive Rebounds

Offensive and defensive rebounds are important because they not only show the good and poor rebounders, but immediately spot any lapses as well as improvement both on an individual or team basis. We like the rebound statistics especially because they help to develop rebound consciousness on the part of the players and result in the boys taking pride in being good board men. Too many teams overlook the offensive board. Statistics could reveal a startling deficiency in this skill. Also, we have found that a lack of rebounding skill on the part of the forwards on defense generally means that they are not covering properly for the longer rebounds in the high key area.

#### Assists

Assists are generally defined as a direct pass for a basket. Statistics on assists not only determine who is the real playmaker, but also uncover those who cannot, or will not pass. A review of our assists has oftentimes led to increased instruction on passing fundamentals because we have found some experienced players who do not pass simply because they do not know how and, therefore, lack the confidence necessary to try if the play is at all difficult.

#### Violations and Incomplete Passes

Too many players take violations and incomplete passes lightly and it is not until they are faced with the actual facts that they are impressed with the advantages they are giving away. We feel that the coach who has not kept statistics will be amazed at the number of times the ball is given away in an actual game. Each violation is usually figured as a point for the opposition, and anyone can see that if violations are frequent they impose a serious obstacle to the winning of a game.

#### Jump Ball Chart

How many close games are won by the team that dominates the jump ball situations? This phase of play is neglected by many coaches who are actually unaware of the percentage of times their team recovers the ball. A poor percentage may be due to a lack of height, but again more work may be needed or an actual change in the jump ball system may be necessary.

In addition to the statistics discussed previously, we are also going to start to experiment on a problem that is always provocative. What percentage of free throws must a player make in order to be allowed to try the free throw shot instead of taking the ball out of bounds? Perhaps, in past years, we have not been playing percentage basketball in some cases. This certainly poses an interesting problem for the coach who has one or more chronically poor free throw shooters. If the coach waives the free throw shot his team will not only retain possession of the ball and have a chance for a field goal, but with continued possession there is a greater possibility that the opposition will foul. If he accepts the free throw shot he will generally lose possession of the ball

(Continued on page 61)

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## **Teaching Individual Defense**

By JAMES M. WINK

Basketball Coach, Highland Park, Mich., High School

THE balance between offense and defense in basketball, which during the past few years has definitely been toward offense, now seems to be leveling off. Many coaches are beginning to realize that it is much simpler to hold the opponents to eight points less per game than it is to score nine additional points in order to win. The day of trading shots at the basket with the opposition seems to be over. Without the slightest consideration for defense a high-scoring team is bound to experience a night or part of a game when nothing will drop through the hoop and perhaps they will lose. However, with a strong defense to hold the score of the opponents to a minimum, and to get the ball, chances are the team will be in the running throughout the game despite the fact that its offense is off. A good defense may also be a great factor as far as morale is concerned. It takes real teamwork to produce a fine defense.

A powerful team defense is dependent upon sound individual defense. This is true whether the team defense is a zone, a press, or a man-for-man. Many coaches say they must use a zone defense because their players cannot play the man-for-man type. However, if all of the boys are skilled in individual defensive techniques, many different team defenses may be em-

ploved

Good individual defense is built through hard work on the part of the player, and by developing the basic fundamentals through definitely planned defensive workouts. The basic fundamentals of individual defense are: (1) stance; (2) footwork; (3) use of the hands; (4) rebounding; (5) position of the defensive player in relation to his opponent and the ball; (6) determination and aggressiveness.

The most important thing about proper stance is balance. In order to maintain a good balanced stance the player's knees should be bent slightly and his weight evenly distributed on both of his feet. His feet must be far enough apart to enable him to move quickly in any direction. If his feet are too far apart the player will not be able to start fast. In guarding an opponent who has the ball, one of the defensive player's hands should be extended upward to block or bother a shot, and the other

hand should be extended to the side to stop a possible dribble or pass. As soon as the offensive player receives the ball the defensive player should extend his hand upward to bother a shot. This movement is not effective if the defensive player waits until the offensive player has made up his mind to shoot. Few shots will be blocked by the extended arm, but a great many may be discouraged if the arm is up soon enough.

Stance and footwork are closely related. The slide step is the basic defensive movement of the feet. Crossing the feet on defense should be discouraged unless a running step is necessary to catch up to the offensive player. We want our boys to slide with short gliding movements and keep their feet in contact with the floor, thus making it easier for them to change direction more quickly. For example, when moving to the right, the player's right leg should be moved over and his left leg immediately dragged up to the position previously held by his right leg. This will enable him to keep the comfortable spread of his feet and maintain the good balance necessary to cope successfully with any sudden change of direction by the offensive player.

Proper stance and footwork may be taught by the use of a very common mass drill. The players should be instructed to line up in horizontal lines and assume a good stance. Then the coach gives the commands for all of the movements he wishes the players to make — right, left, rear, and forward. This also serves as an excellent leg conditioning drill for early season practice. After these basic principles are learned, drills which include both offense and defense should be taught

together.

We stress three basic drills to develop our individual defense. The first of these drills is called Hands on Hips. The defensive man is instructed to keep his hands on his hips and not use them in his attempt to stop the offensive player. This drill offers fine practice in defensive footwork. The ability to move the feet to keep position and prevent a drive for an easy shot at the basket is one of the most important individual defensive assignments. As soon as the players master this fundamental an appreciable drop in fouls committed

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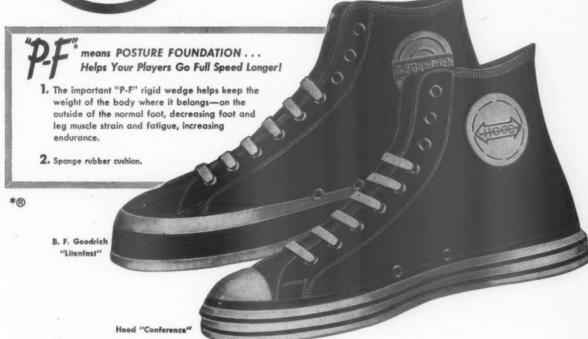
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by the defense will be noticed. A great many fouls result from slapping at the ball and not moving the feet. These can be eliminated if the players will persevere with this drill.

The second drill is somewhat similar to the first one described. It is called One-on-One. In this drill the defensive player starts seven to eight feet away from the offensive man, and is encouraged to use his hands. He tosses the ball to the offensive player and moves up on him for the purpose of stopping a drive for the basket or preventing a shot. The offensive player, of course, is going to take advantage of all defensive mistakes such as rushing up too quickly and too close, not getting up close enough and not having a hand extended upward, and leaving the floor or straightening the knees with a fake.

The third drill, the Two-on-One, is a reliable stand-by. Emphasis is placed on the defensive man fighting a delaying battle. The longer he can delay a good shot, and the more passes he can force the opposition to throw, the better the chance that the two-onone situation will not last long enough for the offense to get an easy shot. The defensive player must drop back to the free throw area and fake at the

dribbler. When the man with the ball stops, then the defensive player must drop still farther back and protect against an easy lay-up shot. There are a great many other defensive drills which are effective; however, these three have always been interesting and received well by the players.

The defensive position assumed by a player in relation to his opponent

JIM WINK graduated from Adrian College, and after army service received his master's at Michigan. He has spent his entire coaching career at Highland Park where a year ago his team was runner-up for the state Class A title. This past spring Wink's team won the Class A title.

and the ball is often the difference between success and failure. The old basketball adage about "stay between your man and the basket" cannot be improved upon in too many instances; and, of course, it is the first fundamental of proper position. Some of the other factors which will determine the defensive position are: size, speed, shooting ability of the opponent, and location of the ball on the court. The

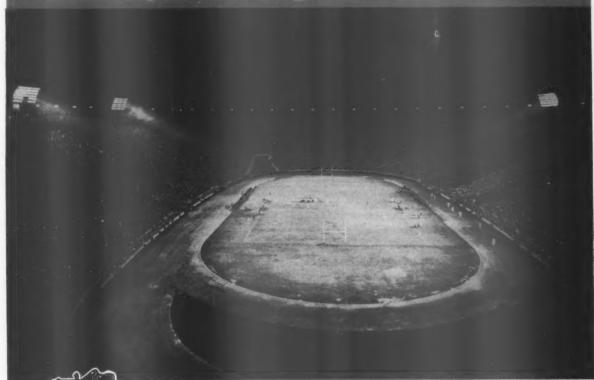
farther a particular man is from the basket or the ball, the more loosely he is played. A good defensive man must be very aggressive around the basket.

Rebounding is also a very important phase of individual defense. Definite drills on boxing an opponent out should be included in the daily defensive practice. Perhaps the main thing for the player to remember is not to ignore the shooter and turn and watch the flight of the ball, but to concentrate on screening the shooter's direct path to the basket, thus keeping the favored inside position.

Defense is sometimes considered difficult to teach because of the fact that desire and determination play such a great role in success. We firmly believe that if a coach can instill the quality of pride in the team's defense into the members of the squad, the boys will not stand for any loafing or repeated defensive errors, even by the high scorer. It is our feeling that a good defensive maneuver should be given as much praise as a fine shot. We attempt to give this praise in our practice sessions and during games, and have found that the players get a great deal of satisfaction from a good defensive performance.



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## Coaching Soccer Is a Fine Art

By DAVID O. WHITE

Roosevelt Junior High School, Eugene, Oregon

AST year the National Soccer Coaches Association voted to change several rules including the throw-in rule, and by their action assumed a responsible role in the development of American soccer. To appreciate this action a glance at the history of the American game is helpful.

Prior to 1910 more soccer was being played in this country than either football or basketball. Then the popularity of the game began to decline rapidly except in areas where pre-"old country" populadominantly tions kept the soccer tradition alive. This general decline continued until it was reversed by the growth of physical education, and an increasing recognition of soccer as an excellent educational instrument. Soccer is becoming more and more an American game, and the rule changes strongly reflect a modern physical education

Changing a rule of soccer is a timehonored method of improving the game. Different generations, groups, and individuals have had different ideas about what should be done with a soccer ball. In 1823 William Webb Ellis took the soccep ball into his hands and ran with it. In 1891 Dr. Naismith tried tossing a soccer ball into an old peach basket. The subsequent popularity of these eccentric diversions proves that the soccer ball is one of the world's greatest instruments of self-expression and lies well beyond authoritarian control.

If tossing a ball into a peach basket is basketball and running with a ball in one's arms is rugby, Americans can honestly claim that throwing a ball in from the sidelines is not soccer. The distinctive characteristic of soccer is that the ball is controlled by the feet of the players. Soccer, however, is more than a soccer ball and a, particular method of self-expression To test the merits of various ball control skills, rules have been developed which provide an objective for soccer play, and establish the conditions under which this objective may be pursued. These rules also provide a test for coaching skills. Among these are many skills which generations of soccer players working with the simple structure of traditional soccer team organization have failed to develop.

Traditional soccer, a product of practice rather than design, is coached from a player's point of view. Attention is centered upon the ball and developing ball control skills. Since each position emphasizes perfection in certain ball control skills, the development of these skills is the engrossing problem, and a limited horizon confirms the correctness of the system. The American coach has much to offer to soccer if he distinguishes clearly between soccer traditions and soccer laws, and accepts the team, not the ball, as his principal instrument of self-expression.

The coach of the traditional game is also part referee in his thinking because he deals with the laws of the game as if their primary purpose is to restrict the play. As stated above, the laws of the game establish the conditions under which the objective of the game may be pursued. The American coach, guided by a desire to win, should exploit every opportunity for legitimate action.

Observers have long been aware that the human element often plays a decisive role in American soccer. Sheer aggression, determination, and inspiration have often spelled victory for a team that is not well-grounded in traditional fundamentals. It would seem that the great unexplored area in the game for the boys with the educated feet lies above their ankles, and that new uses for old ball control skills may provide the outlet for energies which traditional soccer has not touched.

The development of new uses for old ball control skills is not a simple task. Notions about eleven positions and how they should be played are as fixed in most soccer thinking as are the soccer laws. Such thinking

DAVID O. WHITE graduated from Amherst'where ht played varsity soccer for three years. After three years in the army he served as assistant soccer coach at the University of Massachusetts where he completed work for his master's degree, writing his thesis on the sport of soccer. White is currently working towards his doctorate at the University of Oregon.



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is based largely on faith—the faith that every opponent will operate according to the established system. The system plays the center forward against the center half, and a soccer team represents eleven men loosely united by a common cause. In order to reach a point where he readily perceives soccer players as raw material for developing his own pattern of play, the American coach must ferret out inherited misconceptions about this task, and replace them with theories which accurately describe the forces which do or may operate within soccer law.

There are no simple guides to the discovery of forces which do or may operate within soccer law. Open play is still being explored in basketball and football. In spite of the fact that there are only five men on a basketball team, new winning combinations are still being discovered. New combinations also play an important role in football, although the action is not continuous and the players regroup after each play. In light of these facts, opportunities for developing combinations in soccer seem boundless, and the forces which now operate in the familiar "line," "W," "double M," and "triangle" formations may some day seem primitive.

Many of the problems which American coaches inherited from traditional soccer are the products of confused ideas about a player's function on the field. The unpredictable psychic forces which have come to be known as the "human element" do not, however, require a thorough psychological investigation as much as the application of simple logic. To give direction to the aimless fiddling of inexperienced players and the perfected diversions of ball control artists, the soccer coach needs a language which the players can understand.

As we pointed out in a previous article, soccer is a team game. The aim of team play is to score more goals than the opposition; the function of a player is to contribute his maximum effort toward the most effective functioning of the team. At this point the soccer coach must leave the concept of offensive or defensive players to games such as football in which the concept is made defensible through use of substitution after a team has gained or lost possession of the ball. Possession of the ball is offense; lack of possession is defense. The soccer player who is a defensive or offensive player is concerned with only one-half of the score.

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imagination of his players for 88 minutes of play the coach of the open game deals with realities. The drive to perfect ball control skills and to play a winning game is developed by clearly indicating the requirements for satisfying that age-old desire to unbalance the opposition, destroy his game, and take possession of the field. Players should be psychologically prepared to go out and meet the opposition, not to go out to play positions.

The materials which a coach must use to gain possession of the field are also real. The traditional style of play is designed for eleven men whose skills can find its requirements at the right times in the right places against traditional opposition. Lacking eleven qualified men, or possibly with an eye to more efficient operation, the coach should strive for functional design.

The open game meets functional requirements because it is adaptable to the abilities of the players. Ball control skills, mental attitudes, and stamina may all figure in the process of determining how the requirements of the next game situation can best be met. The opposition's goal de-

fenses may be tested by different combinations of players. Their attack may be tested at various points for flexibility and stability in the same manner. After the opposition's strengths and weaknesses have been exposed, the advantage of the flexible attack becomes apparent.

In dealing with realities there can

be no deviation from the traditional emphasis on perfecting individual ball control skills. But the myth of the supremacy of traditional organization may vanish when American coaches, by introducing real flexibility and deception, make one more contribution to the fine art of coaching soccer.

## America's Olympic Broad Jumpers

(Continued from page 39)

ing shown in these pictures. Many times we have seen these boys land in much better position than is shown here. All three of them should have their legs and feet, arms and hands, much higher than is shown here.

The angle of the camera is also deceiving many times when pictures are taken for form. It is interesting to note that all three of these boys take off on the left foot; all of them have good running speed which helps a great deal in getting distance in the broad jump. There have been in the past, however, many fine jumpers who did not have a great deal of speed.

These pictures show almost an identical gather on the parts of Brown and Gourdine, with a slightly different type by Biffle. The carry in the air is different for all three jumpers. It seems quite possible that all three of the jumpers could improve their landings by being more careful of their positions near the end of the jump.

The take-off by Brown is with a slightly bent knee in order to bring added lift to the jump. Gourdine and Biffle, by coming into the board with a straight knee, must get all their lift from the ankle and foot, and a vigorous upward drive with the upper

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# NEW BOOKS

Spread Formation Football, by L. R. "Dutch" Meyer. Published by Prentice-Hall, Inc., New York 11, N. Y. Two hundred forty-seven pages.

This excellent book by the originator of the famed T.C.U. Spread is the most complete discussion of the new theory of attack. It contains specific plays from the spread formation; many photographs and diagrams illustrating the plays; a new approach to blocking angles; an unusual theory on the balance between running and passing games; and a new theory on the nature and use of the forward pass. In our opinion, this book would be a valuable addition to any sports library.

The Comprehensive Basketball Scorer, by Lloyd A. Hinders, 1005 LeRoy Ave., Rock Falls, Ill. Price \$3.50.

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This is a loose leaf type of book and is designed to serve the coach in two ways: 1. To give a detailed record of statistics for each player for each game. 2. To give the coach an accumulative record of each player and the team as the season progresses.

### **Statistics**

(Continued from page 50)

whether the free throw is converted or not. Charts showing the percentage of field goals to the times the ball was possessed are necessary, but it must be remembered that the percentage will be a general one determined over a period of time. However, a norm may be established and its use might prove to be the key to the winning of a close game.

We have found that many coaches shy away from statistics simply because they feel it would be difficult to train interested statisticians. Surprisingly, when we have had trouble acquiring scorers and timers we have always had boys eager to keep statistics. Any boy of normal intelligence, with a little practice, will do an excellent job, and with the coach and players will soon be devising new ways to find out more about the ball club.

### Baskethall Drills

(Continued from page 45)

utes of a game, this knowledge pays dividends in that we are able to adjust our squad to meet pressure conditions or to put on pressure if we are behind.

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In developing individual defense, another competitive drill is used which is designed to improve our defensive play and develop individual offensive shots. One team is played against the other, with the teams alternating on defense and offense. The offensive player cuts out from the sideline and is fed a pass. Covered by the guard, he is free to dribble, fake, and shoot or pass back for a return pass. When the shot is taken, both men follow for the rebound. The successful rebounder then goes on offense. This drill continues until a basket is scored. This particular drill may turn out to be a good conditioner because this man-against-man offense can go on for some time before a basket is made.

Following the same lines, we play a similar game of three-on-three. This game runs for 8 minutes. As soon as the offensive unit shoots, the ball becomes free. The successful rebounders now become the ball owners. It is legal for the offensive team to tap in a rebound. However, if the defensive team secures the ball, it must be passed out to a teammate, and one pass-off must be made before this unit can shoot. It is possible to break up a squad of twelve men into four groups of three players each, with the

winning units playing off for the championship. This competitive game encourages good passing, good shooting, good rebounding, and good camwork besides the main objective, a good defensive workout. At the same time under the camouflage of a strimmage, it keeps the boys happy. Remember they do not like to work on dull routine drills. Competition eliminates the dullness and keeps the squad at the proper mental pitch.

In preparing our defense for opponents, we try to duplicate assignments so that the boys will be prepared when they meet their next game opposition. The procedure of covering big boys with big boys, and fast boys with fast boys, is not followed at all times. However, we have had good luck in playing good scorers on good scorers. In this way pressure is put on the offensive ace of the opposition, and not only is his scoring rept down, but the morale of his team is broken. Regardless of what method is used, plenty of time is spent covering boys on our squad who resemble the members of the opposition most likely to cause us trouble.

In playing pivot men, it has been found that no matter what our boys do they seem to run into trouble as long as they lie back and allow the opponents to set up their pivot offense. If we can, we will close press the guards or feeders and pick them up about 15 feet in the back court. We have our center play their pivot man on the side close and ready to intercept long passes from the feeders. If our pressers are doing a good job, these passes will usually be hurried and can be picked off easily. At the same time our pressers are in the right spot for us to start a quick break. Long practice drills are needed to develop perfect co-operation between the pressers and the defensive boys who are covering their pivot man and their corner men. These three men must be played close if the press is to be effective.

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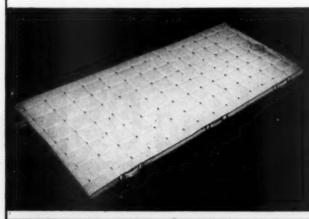
If we are unable to check the guards, the pivot man is played two ways. He is covered on the side and slightly in front of his shooting hand when he does not have the ball or behind and to his strong side if he has the ball. In the latter case, we drop the forwards back and encourage them to double-team the pivot man as much as possible.

Routine drills are used in developing a defense against taps. This year with a 6 foot, 5 inch center, we had to develop special defensive maneuvers to keep our opponents from steal-

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THE ATHLETIC JOURNAL

ing the tap. In the tournaments this particular defense paid off, and we only lost the tap once on a steal.

In covering out-of-bounds plays, we loosen up and actually apply the principles of a zone defense. Very few baskets have been scored against this system when it is properly applied.

In covering screens, we keep encouraging the boys to avoid the screen. We try to have them anticipate the screen. If they anticipate the screen they may keep out of trouble. When screened, we shift and stay with our new opponent until control of the ball is gained. However, our boys are encouraged to refrain from shifting unless it is absolutely necessary. We prefer to keep the responsibility clear and established, and permit the shift only as a last resort.

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In conclusion, let us say that all of the defensive drills in the world are not enough unless the coach is a stickler for perfection. Many defensive blunders are the result of slow thinking. Walking into screens; lining up with the opponent between a player and his basket; playing an opponent on the tap too closely when it is obvious that a long tap will be made; and playing the opponent close on out-of-bounds plays are situations that demand constant checking and constructive criticism. A boy must be shown where he is wrong and why he is wrong.

This philosophy of defensive coaching, plus the use of snappy, competitive and game-like drills will develop defensive prowess in the area of offensive basketball. At the same time it will make a team's offensive play better. Without the use of any kind of a set offense, we averaged 51 points in 28 games last season, while maintaining a 34 point defensive average to lead the state in defensive alertness.

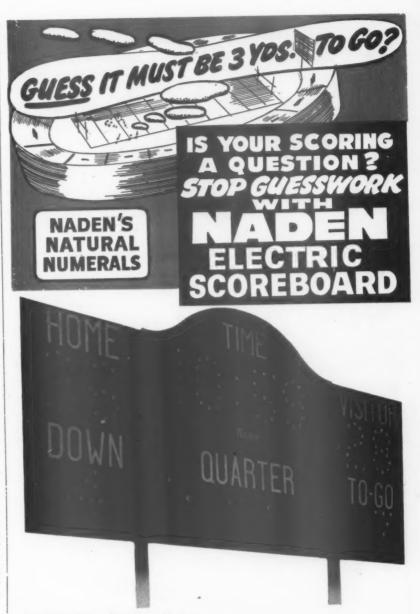
### **Programs**

(Continued from page 26)

eograph ink. This necessitates spreading the programs around to dry before they can be stacked.

In small schools the four-page program is probably most suitable. These are provided in the form of flat single sheets and must be folded. If they are to be produced by means of a liquid duplicator a separate master sheet must be typed for each page.

In folding programs for this type of production, time and effort can be saved by folding them first with the middle pages on the outside. The two



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center pages can then be duplicated first. Then just one more folding is necessary. If the first and last pages are produced first an extra folding is required, since the inside pages must still be duplicated. A group of students can do this folding chore quite well. They should be instructed to get the corners together and make a sharp crease at the fold.

The heart of a good program is accurate information concerning participants. Starting lineups including uniform numbers, squad lists, and the names of officials, coaches, managers, and trainers are generally placed on the center pages. The correct spelling of names is extremely important as is the correct listing of uniform numbers. While the makeup of starting lineups is subject to change, the information should be as up-to-date as possible.

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In football where the two platoon system is used, both the offensive and the defensive lineups should be provided. In this case the offensive lineup of one team and the defensive lineup of the other may be placed on the same page. Although accurate player information is very important the other contents of the program must be given careful consideration.

The program may be a source of various types of information. It is a poor policy to use advertising to the complete exclusion of printed information which would be of interest to those purchasing the programs. The program content should be well written and carefully edited. It is possible to place considerable responsibility for program publication in the hands of students, but adult supervision is required. A faculty member may be assigned as the program director to guide the student staff in the publication of an interesting, informative, salable program which may tap an undiscovered source of income for high school athletic departments.

#### Content of Programs

The material to be included in a program should be of interest to the fans who are expected to buy it. Therefore, most of it should have some connection with the competing teams, the schools, and the communities.

Pictures make excellent program material. The cost of cuts somewhat limits their use, but those in charge of program publication should use photographs whenever possible. The types of pictures are almost limitless. Action shots, group photographs, and individual pictures of players, coaches,

ARRY LEHMANN is a coach who has been vitally concerned with securing financial support for his athletic teams. In the September 1950 issue he discussed means of boosting ticket sales by presenting displays in retail stores. At that time he was connected with the Plymouth, New Hampshire, High School. This article is a very sensible approach to the lucrative program business. In addition to football, Lehmann handles baseball at Swampscott.

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and administrative personnel lend themselves well to program use.

In addition to the rosters of the players, it might be well to include the schedule for the football team as well as the schedules of other teams representing the school. If the school is a member of a league or conference it may be possible to publish the complete schedule for all entered teams. A composite schedule of the home team and all rivals may also be used.

If the game is played at some public field or arena a list of future events at that particular site will be of interest to the readers. In connection with the actual site, the following types of information may be helpful to those attending games: lost and found department, parking rules, rest rooms, rules concerning exits, first aid room, police, and smoking rules.

Printing the songs and cheers of the competing schools may add strength to the rooting section. Brief writeups of the players, coaches, faculty members, and league officials may be effective, particularly when accompanied by pictures. The program also offers the administrators an opportunity to present messages of greeting and appreciation. Also, it may be used to acquaint the fans with rules changes, new trends, and to stress good spectator sportsmanship.

Information concerning the opponents of the day is always of interest. Their records to date during the current season as well as a history of the complete series over the years can be included.

If it is at all possible some provision should be made for keeping score of the contest. At the very least, space for the score by periods or innings should be provided. Drawings of officials' signals are included in most programs. Often they are incorporat-

ed in an advertisement.

The cover should be attractive and contain the names of the members



of the competing teams, the date and time, the name of the field or gymnasium, and the price of the pro-gram. In the case of tournament programs, the name of the sponsoring group should appear on the cover.

Following is a list of additional material suitable for inclusion in a game program: 1. Coaching staffs of all sports. 2. Code of ethics for spectators. 3. A sports quiz with correct answers on another page. 4. A sports crossword puzzle. 5. Scoring rules or hints with space for keeping score.

6. A list of the values of the various scoring methods. For example, in football, the value of touchdowns, field goals, safeties, and conversions would be included. 7. Intramural league results and standings. 8. Announcement of coming school events, not necessarily limited to athletics. 9. Articles written by sports writers and other authorities. 10. Cartoons and poems by talented students. 11. News of alumni active in preparatory school, college, amateur, semi-professional, and professional athletics. 12. Writeups of faculty members. 13. Stories about other school teams (soccer, cross country, track, golf, ten-

## ◀ REDUCE AND PREVENT INJURIES RELIEVE NERVOUS TENSION **◀** SPEED RECOVERY OF INJURED TRIPLE TABLE of many models **■ LOOSEN TAUT** of Niagara echanical Masseurs With the help of a "MECHANICAL MASSEUR"



2-UNIT PORTABLE SET: Can be carried to games and used at the players' bench. Ideal for home use. Recommended by Ralph Kiner, Joe Kirk-wood and other sports "head-liners", including major ball clubs and top colleges.



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sage action.
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### **Cross Country**

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(Continued from page 30)

practice. Some runners will be unable to do this and will want to leave the team after the first few practices. It is much better to alternate running and walking short distances for at least the first week. Having the boys stay in one group during this time will build up confidence in the inexperienced runners. Being able to run these short distances along with the returning letter men will give the inexperienced runners that needed confidence which will inspire them to try harder. The coach should start with easy practices and gradually make them harder as the season progresses.

From the beginning the coach should try to develop a good mental attitude in the minds of the runners. He should strive to have each boy thinking about bettering his time whenever he competes. Emphasis should be placed on improvement rather than on how the boys finish in each meet. A boy who is not placing high in the meets will be more apt to stay out for the team if he is concentrating on his own time and striving to improve on it at each opportunity. To help implant this mental attitude in the minds of the runners, a chart of the times of each runner for every meet should be placed on the locker room bulletin board. A record of each boy's best time for each year of competition should be included. This type of chart will create much interest among the team members.

Of greatest importance to cross country running is pace work. No coach should overlook this type of training for his squad. It is desirable, but not always possible, to work out a pace for each half mile. If a coach can time his runners for each half mile during the meets, he will find it extremely helpful. As an example, we discovered that some of the boys were running the hilly part of the course in a faster time than the flat part. Inexperienced runners are always afraid they will be unable to finish the race so after running a fairly good mile they will slow down too much during the third half mile to save themselves for the last half mile. Working on pace will reveal these mistakes and many others, and at the same time will aid immensely in planning a race which will get the best out of each runner.

Every attempt should be made to reduce the monotony of daily practices. It takes all the imagination of the coach to plan practices which will act as an incentive and not become dull day after day. Occasionally the team should be permitted to practice some place other than on the school course, such as a nearby park or golf course. The school track should be used for underdistance work. Games of different types will help to get in overdistance training. The boys may work in pairs or larger groups with different individuals setting the pace. Using relays frequently is an easy way to increase interest. In short, the coach should employ any device which will give the runner a good workout without his being aware of it.

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It is advisable to impress upon the team the fact that there is more to cross country than just "picking them up and laying them down." Although there is no doubt that this is of the greatest importance it is no reason for boys to run with a blank mind. They should be taught how to pass

ROLLAND LANGERMAN grad-uated from Michigan Normal and then immediately took his master's work at Michigan. Upon receiving the advanced degree he started his coaching career at Walled Lake. In four years his track teams have won three conference championships, and his cross country teams have ranked high among the teams of the state.

opponents, how to run up and down hills, how to run at a certain pace, what their form should be like, how to run in a relaxed manner, and when to put on their "kick." It is important that they think about these things when they are running. By doing this the boys, in addition to running a more intelligent race, will have their minds on things other than how tired they are, and this in turn will make cross country more interesting.

Although only seven men may count in the scoring, try to arrange so that all of the boys on the team may run, but permit only the first seven to count. We realize this is not feasible for large meets, but where only two or three teams are running it can be done. If it is not possible to have all the boys run at least have a reserve meet immediately following the varsity meet and allow the others to compete. However, having just one run with all of the boys competing is preferable. A sure way to have a small cross country squad is to run only seven men in each meet.

Cross country is definitely a team sport, and every member of the squad should be well aware of this fact. Meetings should be held for the specific purpose of showing how cross country meets are scored and how the placing of each runner may be the difference between winning and losing. Too few runners are aware that their fifth, sixth, or seventh place may make the difference. The team members should be made to realize that it takes more than two or three good men to win a meet and that every place counts. A great deal of team spirit may be developed on a cross country team.

The value of publicity should not be underestimated, particularly when it concerns cross country. A writeup of each meet should appear in the local and school newspapers. Endeavor to have pictures included also. When pep meetings are held for the football team, the cross country coach should request a few minutes to talk about the team and introduce the runners. It would even be wise to devote an entire assembly to cross country and explain the facts about the run-



It was a daring play. His team was on the two yard line, the score tied. The ball snapped back and he leapt forward, ten men trying to stop him. Then... the hard crush of bodies and sudden pain. Yet, somehow, he was still on his feet, plunging toward the goal. The crowd went wild. He made it and his team won.

But back in the locker-room it was another story. His mouth cut and bleeding, this man was painfully injured and lost valuable teeth he could never replace.

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ning and scoring of meets. When a course lends itself to photography, it is a good idea to take motion pictures of at least one meet. These pictures will serve as excellent publicity and they may be used from year to year to create interest. Never miss an opportunity to publicize the team in any way.

Of further value to the functioning of the team is the election of a captain. Assign the captain definite duties to perform and make certain he understands his responsibility to the team. A good captain can help immeasurably in maintaining high morale among the team members.

The success of a cross country team over a period of years depends largely on obtaining a good turnout each season and then keeping these boys out for the team. It is easy for an inexperienced runner to become discouraged, and steps must be taken to eliminate this condition as much as possible. It is felt that the foregoing suggestions will prove helpful in coaching a high school cross country team.



(Continued from page 24)

#### Rules of Fleetball

1. Playing Field: The playing field is approximately as wide as it is long. Its exact length and width varies with the facilities and the number of players. For twelve players a field 60 yards wide and 40 yards long is recommended. For six players a field 40 yards wide and 40 yards long is recommended.

2. Number of Players: Any number of players, up to sixteen per team, may play the game.

3. Ball: A regulation football is used.

4. Length of a Game: The length of a game is varied to meet available facilities and time allocations. For example, if 30 minutes of the period are available then this time is counted as one game.

5. Scoring: A touchdown counts six points and a safety counts two points. The point after touchdown is optional. If it is used, the ball is placed equidistant from each sideline and five yards into the playing field. The offensive team must pass successfully or run the ball over the goal line for

the point.
6. Centering the Ball: The ball is put into play by a kick-off or by centering it from the line of scrimmage. One of two methods of centering may be used: (1) the conventional football center; (2) the center faces his backfield and passes the ball between his legs. This method is conducive to a greater variety of play because the center has a wider range of targets, and he may pass the ball a greater distance. With this method the defensive

intentionally push the center.

7. Kick-Off: The kick-off, punt, drop-kick, or place-kick is used: (1) to start the game; (2) begin the second half; (3) by the scoring team after each touchdown. The ball is kicked from the goal line at a point equidistant from the sidelines. The kicking team lines up five yards behind the kicker and cannot advance until the ball is kicked. On-side kicks are not permitted.

team is penalized if any of its players

The team receiving the kick-off may spread its players in any manner as long as no player is nearer the ball than half the length of the playing field.

8. Dead Ball: Except on the kick-off all fumbles result in a dead ball. The ball is put into play where it touches the ground, possession remaining with



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THE ATHLETIC JOURNAL

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the team in possession at the time of the fumble. Note: Intentional fumbling shall cause the offending team to receive a penalty for unsportsmanlike conduct. (See Rule 16E)

A. On the kick-off the player field-

A. On the kick-off the player fielding the ball may unintentionally fumble it, pick it up, and continue the play. He cannot fumble the ball

again in the same play.

B. On the pass from center, the backfield player receiving the ball may fumble it, pick it up, and continue the play. This privilege is given only to the player receiving the pass from center. In case he should fumble and the opponents touch the ball before he can field his own fumble, the ball shall be declared dead and possession, unless on the fourth down, remains with the team centering the ball.

C. The ball is dead when the ballcarrier is touched below the belt line by one or more opposing players. The ball is not dead if the ball-carrier is

touched above the belt line.

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D. The ball is dead if the ballcarrier falls to the ground so that one or both of his knees or one hand touches the ground. The ball is played from where the ball-carrier touched the ground.

E. An incomplete forward pass which travels from behind to over the line of scrimmage causes the ball to return to the line of scrimmage. An incomplete pass or lateral behind the line of scrimmage places the ball at the point where it touched the ground.

F. If the play has carried the ball past the line of scrimmage then: (1) an incomplete forward pass brings it back to the point from which the pass was thrown; (2) an incomplete backward or sideward pass or lateral places the ball at the point where it touched the ground.

9. Downs: If the offensive team has a pass intercepted by the defense then the defensive team is immediately on the offense, but it is not charged with a down until the ball is put into play from the line of scrimmage. In other words, a down occurs against the offensive team only when the ball is played from the line of scrimmage. The offensive team has four downs in which to score a touchdown. If this is not accomplished in four downs, then possession of the ball is given to the other team (exception is shown in Rule 16E).

10. Punting: Except on the kickoff no punting is allowed at any time.

11. Out-of-Bounds: The ball is out-of-bounds when any part of the ball-carrier's body touches the boundary line or when the ball goes out-of-bounds. If the ball is fumbled and lands outside the boundary, posses-

sion remains with the team last in spossession before the fumble.

12. Position of Players: A. On kickoffs the kicking team must be five
yards behind the kicker and the receiving team must not be closer to
the kicker than half the length of the
field. B. On plays from the line of
scrimmage no restriction limits the
position of the players. For example,
the offensive team can have all of its
players in the backfield or all of them
in the line.

13. Running: Any member of the offensive team can be the ball-carrier. If a player on the defensive team intercepts a pass, then his team immediately becomes the offensive team and any player may run or pass the

h-11

14. Passing: Any member of the offensive team may pass the ball to any teammate. The pass may be forward, backward or sideward. There is no restriction on the number of times one player may handle the ball during a play from scrimmage or on the kick-off.

15. Blocking: Shoulder blocking is legal in an area of ten yards on either side of the ball along the line of scrimmage. Blocking or the intention of blocking outside of this area is illegal and shall draw a penalty (section 16D).

16. Penalties: A. Off-Side: A player is off-side if any part of his body is ahead of the ball when it is put in-

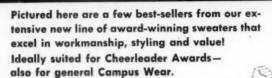
to play. Off-side shall cause the violating team to lose five yards.



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B. False Center: If the center fakes a pass in an attempt to draw the other team off-side, his team shall be penalized five yards.

. C. Unnecessary delaying of the game shall cause the offending team

to be penalized five yards.

D. Blocking: This is defined as physical contact, or an attempt of physical contact intended to hinder the opponent's efforts to touch the ball-carrier. Illegal offensive or defensive blocking shall draw a ten yard penalty from the original line of scrimmage.

E. Intentional roughness or unsportsmanlike conduct: Either of these penalties cause the offensive team to lose possession of the ball to the other team. If the penalty is called against the defensive team, then it is denied its turn on offense, and the offensive team is given a series of four downs in addition to the series it was playing at the time of the

penalty.

We would like to give a few facts concerning the practicality of fleetball; it is not a theoretical game—one that looks good on paper but fizzles in practice. This game has gone through three seasons of play and has undergone many changes; most of them have come from students who played the game. A number of schools are using fleetball and to our knowledge not one of them has reverted back to conventional touch football. Try fleetball in your program and let the judgment rest with the participating students.

### Turf

(Continued from page 22)

off at each mowing. Regular mowing also makes the field look better because it promotes a dense, well-knit turf.

#### Watering

Artificial watering should be done sparingly. During hot, humid weather it is better not to water bluegrass at all. Overwatering is harmful to the turf and brings in weeds; moreover, it is expensive and entirely unnecessary. With proper management practices, grass will develop a deep, extensive root system that will carry it through dry periods. When water is applied, a light sprinkling that will only moisten the top one-half inch should not be used. This will cause grass roots to stay at the surface. Then frequent watering will be necessary to keep the grass alive because evapora-

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tion takes place rapidly from the surface soil. Water should soak deep into the soil so that the roots will grow down and use moisture from the cool, moist layers in the soil.

### Fertilizing

Fertilizing is another factor that encourages a deep, vigorous root system. Fertilizer also makes for good color. Because grass turns green when it rains after a period of drought, there is a mistaken notion that water is what keeps grass green. But water alone will not do it. Grass needs food as well as water, if it is to have a good, dark green color. We apply organic nitrogen at the rate of 1000 pounds per acre in the spring of the vear and follow it with 200 to 300 pounds to the acre once monthly during the growing season. This is not a blanket recommendation. The amount of fertilizer and when to apply it must be judged by the appearance and growth of the grass.

Soil tests for nitrogen are not an accurate guide. Where grass is growing vigorously, it takes up nitrogen and a test will show a low amount of available nitrogen in the soil. Where grass is practically dead, there may be a very high amount of nitrogen in the soil, simply because it is not being used. A certain amount of experienced observation is needed to judge nitrogen requirements. We use an organic nitrogen fertilizer because it becomes available gradually and maintains a more uniform growth of the grass. Phosphorus and potash are added in spring and fall only as needed. This need is determined by a soil analysis.

#### Liming

Lime should be used only when it is needed. The pH should be kept in the vicinity of 6.5 to 7.0, which is almost neutral. Grasses will not grow well when the soil is too acid or too alkaline. When a soil reaction test shows that the pH is below 6.0, then lime should be added in sufficient quantity to return the soil to neutral. When soil is deficient in magnesium, dolomitic limestone may be used. In other cases, the customary calciumbearing limestone is used. Lime should be applied in the early spring or the late fall.

#### Aerifying

Aerifying is another routine maintenance procedure, and is a major factor in developing a good root system.

# Renovation of Athletic Fields with the AERIFIER\*

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Soil amendments, lime and fertilizer may be applied immediately before or after aerifying. Aerify several times. Drag the area with a steel mat or piece of cyclone fence to work materials down into the openings. Apply seed and drag the area again to cover seed.

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The tractor-drawn F-G model Aerifier provides rapid coverage. A single unit cultivates a three foot path. Cultivation depth is adjustable. Aerify deeply to encourage root growth; several shallow aerifications prepare the surface for seeding. No other tool is needed.

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Aerifying increases the value of other maintenance operations. Fertilizer shows up better after aerification has opened up the soil so that plant foods can penetrate to the root zone. Water is able to soak into the soil, instead of being wasted as runoff. As a rule, aerifying should be done three times a year — spring, early summer, and early fall. Here again, good judgment should govern usage. Under exceptionally good conditions, it may be possible to get along with aerifying only twice a year. Under other conditions, six or eight aerifications a year may be necessary.

Under normal conditions it is adequate to pass the aerifier over the field three times at each aerification. If the soil in the field is very compacted and tight, it will not hurt to go over it six or eight times. The aerifier should be set to cultivate to its maximum depth. Three-quarters or one inch diameter spoons should be used on the implement. Soil brought to the surface by the hollow spoons is broken up by pulling a steel mat behind the aerifier. Then the field is mowed and watered. About a day for the entire procedure will be necessary for the ordinary football field. This treatment does not disrupt the use of the field and as soon as the equipment is off the field, it is ready for use.

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Maintenance will be more complicated if there were errors in the original construction or selection of grasses. In this case, the management program should include plans to correct the faults. New grasses can be introduced into the established turf without tearing up the sod and beginning all over again. If the soil mixture was poor it may be modified by the addition of new material and the field can be kept in use. This cannot be accomplished overnight, but must be part of a long range improvement program. The important consideration is that it is possible to keep the field in a usable condition while improvements are being made.

In introducing new grasses into the established turf, the seedbed should be prepared with the aerifier. The area should be aerified six or eight times, to break up the surface thoroughly so seed can come in contact with the soil. It is not necessary for all of the aerification to be to full depth; shallow cultivation will scarcify the surface. The area should then be dragged, seeded, rolled, and sprinkled. Existing grass is not destroyed. Under good management the new grass will spread and become estab-

lished on the field.

If new materials are to be added to the soil, aerification should be done and holes left open until a top dressing of suitable materials can be applied. The area is dragged to work the top dressing into the holes, and then watered. In succeeding aerifications and top dressings more and more good dressing mixture can be worked in to the soil.

Sound management will go a long way toward improving a field. This important aspect of the game should not be neglected. A good field is part of the necessary equipment for outdoor sports. When turf is given a fair share of attention a dense, wearresistant field that pleases the spectators and is safer for the players will result.

### **Fundamental Drills**

(Continued from page 18)

touches the ball or the man with the ball then he gets out of the center. This drill teaches five fundamentals: Pivoting. 2. Faking: 3. Passing.
 Defensive footwork. 5. Getting rid of the ball without too much hesi-

Then two circles are formed, one



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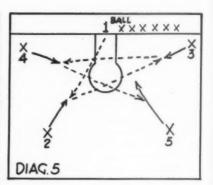
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around the other. One group moves clockwise, and the other moves counterclockwise, using one ball, and passing from the inside out, and the outside in. When the boys are ready another ball is added. This drill is used only for conditioning and ball-handling.

Another everyday drill is the old criss-cross or figure eight. Three lines are used, with the ball starting in the middle. The player passes and goes behind the man to whom he passes, etc. The last player in is allowed to shoot from the opposite end of the floor.

A little more is added to this drill, Diagram 4, by having the middle man start the ball with a dribble, a pivot, and a hand-off to a man who is breaking by. After the boys have run in this manner for a few minutes three defensive men are added to the setup and work is continued for another 10 or 15 minutes.

In our lay-up drill, Diagram 5, four men are placed out on the floor with the remaining members of the group lined up on the base line to get the rebound and start the process again. The ball starts with No. 1 and goes to No. 2, No. 3, No. 4, and No. 5. The man who passes the ball takes the place of the man to whom he passes. This drill provides ball-handling practice for the entire group. The boys are also going with the pass, meeting the pass, and are learning to shoot from different places on the floor because the shooter may go into the basket from any angle he chooses. The angle of approach may be changed by making the first pass out to No. 5 instead of No. 2. Then the pass goes from No. 1, to No. 5, to No. 4, to No. 3, to No. 2, who is the shooter.



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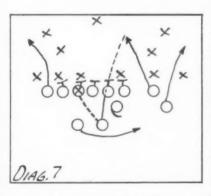
### **Buck Lateral**

(Continued from page 20)

fense presented. He is placed from one to two yards outside the offensive end. All of the backs use an upright stance with the exception of the wingback because of his assignment as a blocker on the defensive tackle. The fullback and tailback are placed on a line four and one-half yards behind the center and right guard respectively (Diagram 1A).

### Ball-Handling

On all of our buck lateral plays we ask the center to pass the ball at a point just below his belt line on his right hip. The fullback takes the ball with his right hand forward over the nose of the ball and his left hand back on the side. This position makes it easier for the fullback to fake a



give to the quarterback, and to tuck it in for the keep into the line. The quarterback receives the ball by cupping his hands on his right hip. At the moment of the fake he drops his left shoulder slightly to detract from any motion caused by an actual exchange. The quarterback's right hand is in control of the ball with his fingers down. He is now in a position to step out, and make the long shovel pass to the tailback who is coming around.

#### Footwork

We ask the quarterback, when pivoting in the same spot, to use a jump turn. He bends his knees slightly and jumps 180 degrees from his starting position. On plays where the exchange is made to the right or left of the quarterback's position we have him pivot out. When going to his right the quarterback pivots on his

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right foot away from the line of scrimmage. This brings him to a position one man removed to the right. When going to the left, the quarterback moves the opposite way.

We ask our wingback to use a half pivot to the left on the right foot with a slight drop step of his left foot. This delay allows for timing difficulties in bringing this man across to the weak side. We allow the wingback to use a cross-over start when he goes in motion.

### Basic Plays

Our basic fullback keep play is shown in Diagram 1A. This simple play has a number of variations. In the basic play the fullback fakes and keeps into the line. The quarterback fakes a pitch-out to the tailback going wide. Diagram 1B shows the wingback taking a fake over the weak side. The tailback again goes wide. In this play the wingback is also put in motion.

Diagram 2 shows our pitch-out play. The fullback exchanges with the quarterback, and drives on into the line for a fake buck. The quarterback takes three steps laterally to draw in the tackle and the end, and pitches to the tailback waist high at a point about five yards behind the wingback position. Diagram 2 also shows a fake to the wingback.

In Diagram 3A the quarterback keep inside the tackle is shown. We trap the defensive tackle with our inside guard. After the quarterback has broken past the line of scrimmage he may lateral off to the tailback who has come around wide. This lateral puts a terrific pressure on the defensive halfback, and this play keeps the end and tackle honest. Diagram 3B shows a keep after a fake to the wingback going to the weak side. On all of the plays where the quarterback is handling the ball, he has an opportunity to harass the defensive



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THE ATHLETIC JOURNAL

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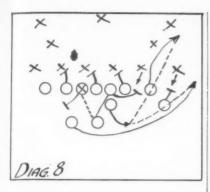
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end. Two years ago our best play was an optional keep by the quarterback. Sometimes at the last minute he would toss a basketball pass to the left half swinging wide.

Diagram 4 shows a trap on the defensive right tackle with the wingback carry on a short-side reverse.

The weak-side pitch-out is shown in Diagram 5. We always start our wingback a count ahead of the ball.

In Diagram 6 our end around play to the strong side is shown. This play worked exceptionally well for us in our last game of the past season. Our left end was very fast on his feet and carried two of these plays to the defensive safety before he was tackled. The defensive end was floating to stop our wide pitch-out, and he was taken out of the play altogether. We started our wingback in motion to the left to draw the defensive left linebacker over. The fullback fake kept him over so that the end could get a good shot at him.

Diagram 7 shows our jump pass with the fullback throwing. The right end goes six yards deep and then takes a 60 degree course over the

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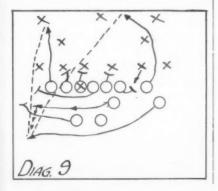
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The play shown in Diagram 8 is a quarterback spot pass to the left half-

back or the right end.

A deep reverse pass play is shown in Diagram 9. This play has been successful in freeing an end deep in the secondary. The play starts with the fullback handing off to the quart-





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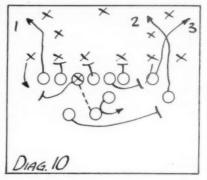




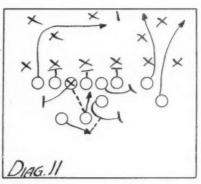
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erback. Then the quarterback runs laterally to the left drawing the end in to him. At the last moment the quarterback pitches to the wingback who has swung wide; he stops, reverse his feet, and throws deep to the left end who has gone straight down the field.



The play shown in Diagram 10 is a good gainer especially against a 6-3-2 defense. The linebackers are forced to maintain position until the fullback has declared his intentions. This play often enables the ends to gain that valuable step on the linebackers.

Diagram 11 shows our long pass play. The one purpose of this play is to throw the ball over the secondary. We have out quarterback hold the ball until the last second in order to draw the defensive end on to him. The tailback fades ten yards behind the line for the long lateral pass.

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### **Analyzing the Olympics**

(Continued from page 28)

ords, such as the composition of the track, the atmosphere, time of competition, and altitude. Whereas, each of these undoubtedly contributed in standing marks was the intense competition that existed between the Western World and the countries behind the Iron Curtain.

Another obvious reason, overlooked by many in attempting to explain the surge of record breaking, is the general improvement in the athletes themselves. Our own Olympic squad carried with it better times and distances made in the trials than any previous Olympic squad. That the improvement reached into other countries also, is clearly shown when we consider a sport such as basketball. In the London Olympics we received little competition in the sport, but the short space of four years found the competition vastly improved not only in the final game, but in all the games.

Any analysis of the Olympics must, of course, include mention of the decline of the athletic prowess of the Western European countries such as France and England. In former Olympics our major competition in track and field came from these and the Scandinavian countries. The tremendous athletic improvement among the athletes representing the Eastern European countries naturally lessened the point showing of the Western countries. Russia was, of course, the surprise of the recently completed games. May we at this time say that we hold no love for communism or anything connected with it, as readers of this column for the past seventeen years will readily attest. However, we must concede that Russia is a first rate nation, athletically speaking. Try as we must we cannot pass off Russia's success by pointing out that the vast majority of her points were scored in gymnastics, Greco-Roman wrestling, and womens' athletics. The amazing success of Russia's basketball team, and the close scare which our team received in the final game, indicates Russia's overall growing athletic strength.

Few, if any Olympics, have been as free from socalled "Olympic Incidents," as the games just concluded. The fraternization between the representatives of the East and West was widespread and we think quite sincere on both sides. The breaking down of international barriers and the resultant better understanding of one another by the youth of the world through a common meeting place on an athletic field was the main thinking behind Baron Pierre de Coubertin's reestablishment of the modern Olympics in 1896. The XVth Olympic Games were a big step forward in achieving Baron de Coubertin's dream.

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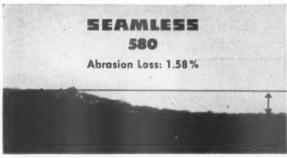
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# Outwears Leading Competitive Balls Better than TWO to ONE

**Abrasion Tests Offer Proof of Performance** 



THE TEST\_Cover patches were cut from the SEAMLESS 580 and three leading competitive balls. Patches were placed on the Taber Abraser revolving disc. All three cover patches were ground under abrasion wheel for a total of 2,007 revolutions.



THE FINDINGS—The following abrasion percent losses were recorded by analytical balance: Ball "A"—3.33% (pictured above); Ball "B"—2.95%; Ball "C"—4.51%, SEAMLESS 580—1.58% (pictured left chove)

### **How to Save on Initial and Replacement Costs**

less 580 basketball costs the same as one of the three competitive balls tested—45% less than the other two—yet its quality is superior. You see economy on your first invoice. Dollars stay in your pocket. You pay less for the best!

Save on Replacement Costs—
"Saved roughly \$325 during the last
two seasons"... "We're using a
580 basketball in its fifth year," say
buyers. Here's why: (1) KOLITE
COVER—tougher than ordinary

rubber, water-proof, scuff-proof. (2) 100% NYLON WOUND CONSTRUCTION—multiple layers give ball greater life. Will not tear! (3) BUTYL KANTLEEK BLADDER—practically eliminates need for reinflation.

• Get a More Playable Ball—This is the ball that was crushed to a thickness of 1-inch by 16,890 lbs. of pressure—without a rip, break or blowout . . . the ball that was subjected to the equivalent of 22 years of play in the U.S. Government Shaper Tester. This is the same ball

praised by players, coaches, referees at the Yale-Springfield Game, New York-New Jersey All-Star Collegiate Game...the ball that was approved by the Seattle Rules Committee.

• How You Can Save Money—Place a trial order for the Seamless 580. Watch it stay new where other balls wear out—on the seams, at the end poles. Order today—see for yourself. Never before was such a fine ball offered AT ANY PRICE.

FINEST QUALITY SINCE 1877

THE SEAMLESS RUBBER COMPAN

NEW HAVEN 3, CONN., U.S. A.



# Superior Performance ... AS USUAL

THE IVORY SYSTEM has just completed production on the largest football reconditioning schedule in history. We have renovated more pieces of football equipment than ever before, and we have done them better than ever before. The recognized supremacy of the IVORY SYSTEM in the reconditioning field is still further extended by this year's workmanship.

DESPITE THE GREATLY INCREASED VOLUME of production and the additional attention given each job, the IVORY SYSTEM has come through on time — as always. The schools and colleges all over the nation that depend on IVORY SYSTEM service have discovered once again that their trust is well founded. The IVORY SYSTEM remains the one outstanding firm in the field by virtue of SUPERIOR PERFORMANCE — AS USUAL.

